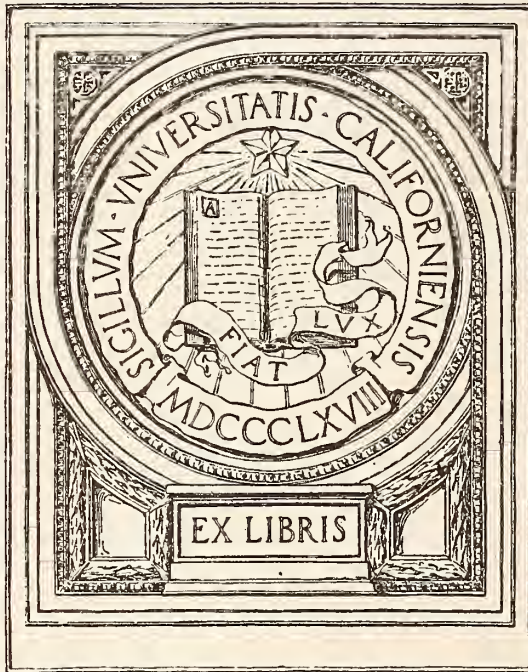




MEDICAL SCHOOL  
LIBRARY

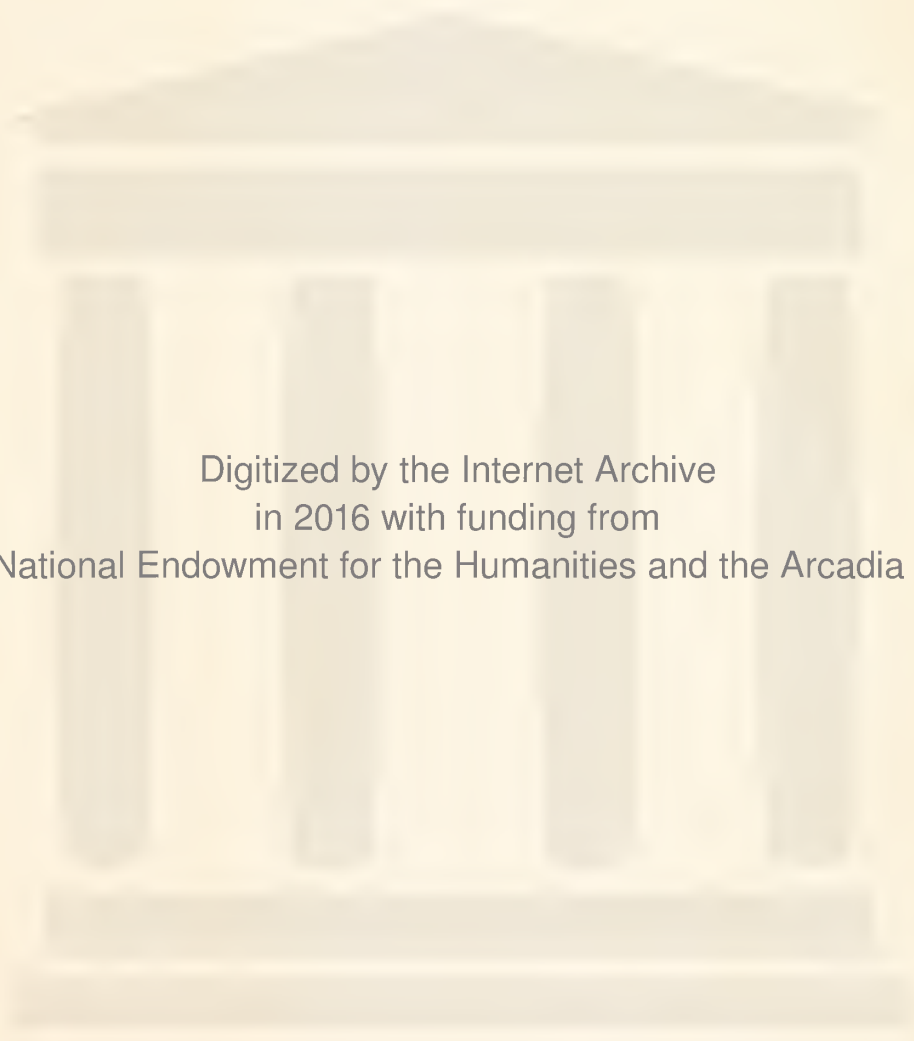


EX LIBRIS









Digitized by the Internet Archive  
in 2016 with funding from  
The National Endowment for the Humanities and the Arcadia Fund





# The Journal of the Iowa State Medical Society

---

## INDEX

Volume XVII, January to December  
1927

---

Editor: DAVID S. FAIRCHILD, SR., M.D., Clinton

Associate Editor: RALPH R. SIMMONS, M.D., Des Moines

### PUBLICATION COMMITTEE

DAVID S. FAIRCHILD, SR., M.D., Clinton

OLIVER J. FAY, M.D., Des Moines

JOHN F. HERRICK, M.D., Ottumwa

VERNON L. TREYNOR, M.D., Council Bluffs

TOM B. THROCKMORTON, M.D., Des Moines

UNIV OF IOWA  
MEDICAL SCHOOL

# INDEX

## 1927

A	PAGE
Abbograms	218
Abbott Laboratories Sales School	57
A Consideration of Principles in Surgery of the Prostate, Verne C. Hunt, M.D.	39
Actions for Alleged Injury from Douche in Hospital	172
Addison, Thomas	213
Address of Hubert Work, Secretary of the Department of the Interior	223
Adoption of Resolution by the White Cross	61
Aloe's Removal	182
Amended Chiropractic Bill Before the Massachusetts Legis- lature	293
American Board of Otolaryngology	146, 241
American College of Surgeons	104
American Medical Association, The	238
American Railway Association—Medical and Surgical Section	63
American Red Cross at the Front, With the	105
Anaphylaxis Following the Injection of 1500 Units Tetanus Antitoxin, Geo. Braunlich, M.D.	450
Announcement of Books on Medical History	68
Annual Conference of Secretaries of Constituent State Medical Associations, Including Editors of State Medical Journals	23
Annual Session of the American Medical Association	294
A Plan for Unfolding the Project of Applying Motion Pic- tures to Medical Education, J. F. Montague, M.D.	204
Approval of Veterans Bureau Hospitals	266
Antitoxin in the Serum, The	426

### AUTHORS—

Albert, Henry	14, 49, 134, 159, 225, 307, 322, 323, 370, 411
Allen, W. L.	161
Armentrout, Coral R.	361
Bierring, Walter L.	75, 367
Bockoven, William A.	365
Bowser, W. F.	18
Braunlich, George	450
Burnett, F. K.	434
Cornell, Corwin S.	229
Deaver, John Blair	121
De Reus, Harry	42
Drueck, Charles J.	166
Dyson, James E.	201
Elliott, Charles Addison	82, 84
Gaumer, James S.	385
Goldstein, Max A.	126, 129
Graber, Verne C.	394
Griswold, Don M.	227
Hardy, A. V.	317, 414
Haumeder, Hans	446
Heagey, F. W.	233
Hecker, F. A.	439
Henry, H. B.	97
Hickman, Charles S.	57
Howell, E. B.	439
Hunt, Verne C.	39
Jackson, Arnold	94
Jackson, Jabez N.	149
Jameson, Robert E.	285
Johnston, K. L.	405
Kanavel, Allen B.	1, 4
Kellogg, Orson A.	22
Kessel, George	365
Lovelady, Ralph	319

	PAGE
Luginbuhl, C. B.	154
McDannell, J.	230
McDowall, Mrs. G. T.	130
Magee, Charles H.	345
Marker, John I.	358
Montague, J. F.	204
Moore, Fred	282
Musser, J. H.	269
Myers, M. M.	388
Naftzer, Jesse B.	401
Orr, Thomas G.	427
Pearson, W. W.	442
Peterson, Reuben	196
Powell, Lester D.	348
Powers, Thomas E.	183
Price, Geo. M.	8
Rock, J. E.	354
Schultz, A. A.	53
Scott, H. W.	132
Smith, Fred M.	151
Sones, C. A.	90
Spilman, Harold A.	276
Strawn, J. T.	90
Turner, M. L.	278
Wallace, James W.	16, 51, 135, 225, 448
White, Paul Dudley	190
Whitehall, Nelson M.	430
Woodward, Lee R.	312
Work, Hubert	223

### B

Backache in Women	417
Bill for Gorgas Memorial Laboratory	215
Births and Deaths of Infants in Iowa in 1926, Henry Albert, M.D.	322

### BOOK REVIEWS—

Annual Report of the Reports of the Council of Phar- macy and Chemistry of the A. M. A.	73, 381
Annual Report of the Surgeon General of the Public Health Service of the United States	344
Bacteriology, a Textbook of	381
Biology, An Introduction to	147
Bronchoscopy and Esophagoscopy	459
Cannula Implants	342
Chemistry, Principles of	305
Chemotherapy, Principles and Practice of	221
City Health Administration	343
Conference of the American Association of Medical Milk Producers	181
Dental Assistant, The	148
Dental Materia Medica and Therapeutics	344
Dermatology, Fundamentals of	71
Disease, the Conquest of	342
Diseases of the Digestive Organs with Special Refer- ence to Their Diagnosis and Treatment	460
Diseases of Infants and Children, The	425
Diseases of the Skin	38
Diseases of Women	72
Examination of Children, by Clinical and Laboratory Methods	422
Exodontia, Oral Surgery and Anesthesia, A Textbook of	adv. p. xvii, Aug.
Fractures, The Treatment of	180

DOUGLAS JACKSON

	PAGE
General Practice, The Specialties in.....	181
Gynecology, A Manual of.....	426
Hay-Fever and Asthma.....	181
Health Supervision and Medical Inspection of Schools.....	220
Heart and Athletics, Clinical Researches upon the In- fluences of Athletics upon the Heart.....	306
Hemorrhoids, The Modern Treatment of.....	71
History Taking and Recording.....	73
Human Body in Pictures, The.....	343
Illinois in the Fifties, or a Decade of Development, 1857-1860.....	221
International Clinics.....	383, 425
Manual of the Diseases of the Eye, for Student and General Practitioners.....	383
Management of the Sick Infant.....	342
Manual of Pharmacology and its Application to Thera- peutics and Toxicology.....	306
Maternal Mortality.....	148
Mayo Clinic, Collected Papers of.....	148
Mayo Clinic and Mayo Foundation, Physicians of the adv. p. xx, Dec.	
Medical Clinics of North America, The 37, 112, 220, 268, 425, 459	
Medical Department of the United States Army in the World War, The.....	147, 219, 380
Medicine in Champaign, Illinois—A Historical Sketch.....	112
Methods and Problems of Medical Education.....	181
Modern Clinical Syphilology.....	38
Modern Medicine, Its Theory and Practice.....	460
Nasal Accessory Sinuses.....	38
Neurology, A Text-Book of Clinical.....	381
New and Non-official Remedies.....	74, 222, 344, 384, 461
Nose, Throat and Ear, Problems of Deafness, Disorders of the.....	adv. p. xvii, Aug.
Obstetrics for Nurses.....	459
Operations, The Business of.....	181
Overcoming Tuberculosis, an Almanac of Recovery.....	460
Pathology, Human.....	72
Pediatrics, Clinical.....	112
Pediatrics, The Modern Practice of.....	343
Periodic Health Examination, How to Make.....	382
Physiology and Bio-chemistry in Modern Medicine.....	221
Potassium and Tartrates.....	383
Practical Medical Series, The.....	adv. p. xvii, July, 383
Practice of Medicine.....	268
Practice of Preventive Medicine, An Introduction to.....	147
Primer for Diabetic Patients, A.....	383
Proctology, A Manual of.....	71
Public Health Bulletin No. 148.....	112
Public Health Bulletin Nos. 153-154-155.....	221
Report of the Department of Health of the City of Chicago.....	adv. p. xvii, July
Rockefeller Foundation Annual Report, 1924.....	38
Sixty Years in Medical Harness.....	37
South America.....	180
Submucous Endocapsular Tonsil Enucleations.....	72
Surgical Clinics of North America, The.....	380, 306, 268, 112
Transfusion of Blood.....	adv. p. xvii, July
Vaccinated, Should We Be.....	342
Workman's Compensation Service, Report of the.....	341
Broadlawns, Polk County Public Hospital.....	30
Business of Medicine, The.....	137
C	
Cancer Control.....	212
Cardiac Clinic, Paul Dudley White, M.D.....	190
Care of Pullman Car Company in Selecting Porters.....	189
Carrel, Dr. Alexis.....	364
Case Report, James E. Dyson, M.D.....	321
Central Clinical Research Club.....	173
Chair of Medical History of Johns Hopkins, The.....	267
Charitable Hospital Held Liable for Burning Patient.....	103
Chemistry in Medicine.....	219
Chicago, Rock Island and Pacific Railway Company Sur- gical Department.....	424

	PAGE
Cholelithiasis in the Negro.....	143
Circular M. & S. 65, American Railway Association.....	31
Citation for the Award of the Sofie A. Nordoff-Jung Cancer.....	2
Clinic; Infections of the Hand, Allen B. Kanavel, M.D.....	44
Coffee Drinking by the Aged.....	214
Collection of Bill—Malpractice Counter Claim.....	29
Commitment of Patients under Perkins and Haskell-Klaus Laws .....	373
Committee on Cancer Activities.....	421
Communication from H. B. Young .....	327
Commonwealth of Pennsylvania Department of Welfare.....	62
Compensation for Services of Family Physician.....	213
Conference of Secretaries and Presidents of County Societies of Wisconsin.....	61
Conference of State Officers and County Secretaries.....	457
Consideration to be Given to Accommodations for Annual Sessions .....	357
Correction on Paper by Dr. Merrill M. Myers.....	458
Country Doctor, The.....	169
County Medical Society Officers.....adv. p. xix, July	420
Cost of Medical Care, The.....	420
Cure for Opium Addiction, A.....	100

## D

Danger of Incomplete Removal of Small and Apparently Innocent Lesions, The.....	141
Danger of Medical Practice Act Amendments, The.....	203
Deaths from Accidents.....	32
Death Rates of Women from Childbirth.....	136
Decapsulation of the Kidney in Certain Cases of Nephritis....	60
Deplorable Publicity .....	293
Diagnosis and Surgical Management of Tumors of the Breast, Jabez N. Jackson, M.D.....	149
Diagnosis of Tuberculous Ulcers of the Bowel, The, J. T. Strawn, M.D. and C. A. Sones, M.D.....	90
Differential Diagnosis of Acute Pyelitis and Acute Appendicitis, H. W. Scott, M.D.....	132
Discharges from the Anus, Charles J. Drucek, M.D., F.A.C.S.....	166
Diseases of the Thyroid Gland—Medical Clinic, Charles Addison Elliott, M.D.....	84
Doctors and the Law, The, Harry DeReus, Attorney.....	42
Dr. Junger as Reporter.....	327
Dr. Rudolph Matas.....	137
Dr. W. A. Rohlf's Sixtieth Birthday.....	101
Dues and Medical Defense.....	137

## E

Early Diagnosis and Treatment of Cancer of the Uterus, Reuben Peterson, M.D.	196
Establishment of Kindergartens	378
Ethics of Medical Newspaper Writing	455
European Clinical Tour	218
European Tour of Travel Study Club of American Physicians	64
Exhibitors at Meeting of the Medical Society of the Missouri Valley	384
Experiences in Neurologic Surgery, Allen B. Kanavel, M.D.	1

## F

Federation of State Medical Boards of the United States	336
Financial Needs of the State Department of Health, Henry Albert, M.D.	14
Five Recent Cases of Shoe Dye Poisoning, Henry Albert, M.D., James Wallace, M.D.	225
Full Time County Health Unit and the Practicing Physician, The, James W. Wallace, M.D.	16
Further Narcotic Restrictions Opposed	107

## G

General Practitioner's Service to Medicine, J. McDannell, M.D. ....	230
Generalized Vaccinia, Corwin S. Cornell, M.D. ....	229
Goiter with Complications, Geo. Kessel, M.D., and William A. Bockoven, M.D. ....	365



	PAGE		PAGE
H		Mayo Foundation Lectures.....	65
Head Injuries, Nelson M. Whitehill.....	430	Medical Directors no Longer Exempt from Income Tax.....	415
Health Department Considerations.....	23	Medical History of Illinois.....	375
Heart Disease; Incidence, Etiology and Economic Aspect, James S. Gaumer, M.D.....	385	Medical News Notes.....	109, 175, 318, 337
Historical Notes, Walter L. Bierring, M.D.....	73	Medical Officer's Medical Reserve Corps.....	65
History of Medicine.....	60	Medical Specialism in the Days of Herodotus (484-425 B. C.).....	300
History of Medicine in Michigan.....	417	Medicine in Industry.....	292
Horlick's Milk Modifier.....	341	Military Surgeons Invited to Poland.....	172
Hormones.....	384	Milwaukee Railroad's Safety Record.....	205
Hospital Clinical Congress of North America, The, News Bul- letin.....	170	Minnesota Legislation.....	236
Hospital for Veteran's Bureau.....	418	Minutes of the Iowa State Medical Society, Seventy-Sixth Annual Session, May 11, 12, 13, 1927, Council Bluffs.....	242
Hospital Notes.....	67	Mott, Dr. Valentine.....	453
Hospitals for Mental Diseases.....	420		
Honor to McDowell and Clay.....	419	N	
Honors Awarded Dr. Chevalier Jackson.....	324	Nature vs. Science, M. L. Turner, M.D.....	278
How May the Wife be of Assistance to the Country Doctor?, Mrs. G. T. McDowall.....	130	Needed Safeguards in the Promulgation of Regulations Under the National Prohibition Act and the Harrison Narcotic Act.....	240
I		Negligent Treatment of Dislocation of Arm.....	376
Ideals in the Practice of Medicine, Fred Moore, M.D.....	282	Neurological Clinic, George M. Price, M.D.....	8
Illinois Doctors, Attention: Former.....	241	Neurosyphilis, H. B. Henry, M.D.....	97
Illinois State Medical Society Special Trains to A. M. A. Meeting.....	146	New and Non-official Remedies, 1926, 73, 305, 382, adv. p. xx, Dec.	
Indications for Surgical Treatment of Duodenal Ulcer, Lester D. Powell, M.D.....	348	New Dean of Medical Department Iowa State University, The.....	417
Indications for Tonsillectomy, W. F. Bowser, B.A., M.D.....	18	New Discovery May Explain Many Food-Poisoning Cases.....	214
Indications for Use of Electro Thermophore in Corneal Ulcers, J. E. Rock, M.D.....	354	New England Has Fewest Homicides in Industrial Popula- tion.....	215
Infectious Jaundice, J. W. Wallace, M.D.....	135	New Hampshire Adopts the Boston Medical and Surgical Journal.....	454
Inoculation for Smallpox in 1792.....	266	New Ruling on Prescriptions for Liquor, The.....	30
Instructions as to Prescriptions for Narcotics, On.....	28	New Step in International Relations of Physicians.....	415
Insulin in Non-Diabetics, H. Haumeder, M.D.....	446	New York Medical Center, The.....	375
Intelligence of the Lay Press in Relation to Medical Affairs, The.....	60	Notes on Hematologic Subjects, J. H. Musser, M.D.....	269
Inventor of Dover's Powder, The.....	64	Notice of Examination for Entrance Into the Regular Corps of the United States Public Health Service.....	378, 455
Iodine Hyperthyroidism, Arnold Jackson, M.D.....	94	Nurses Home for St. Luke's Hospital, Davenport.....	451
Iowa Health Notes, Henry Albert, M.D.....	159, 370, 134, 411		
Iowa State Conference of County Secretaries and Councilors.....	58	O	
Iowa State Fair—Baby Health Score Card.....	297	OBITUARIES—	
Iowa State Medical Society.....	237	Ashton, C. W.....	111
Iowa State Medical Society Officers and Committees 1927- 1928.....	263	Barg, Elias H.....	458
Iowa State University College of Medicine Personnel.....	327	Bigelow, William S.....	70
Iowa State University School of Medicine.....	417	Bigger, Hamilton Fish.....	111
Irradiation of Diseased Tonsils.....	136	Brooks, A. L.....	110
Is There a Standard Suprarenal Extract?.....	107	Calhoun, James Edmund.....	146
Is This Your Journal?.....	294	Coolidge, James.....	70
J		Dosh, G. W.....	458
Johns-Hopkins Plans Reorganization.....	32	Eschbach, H. C.....	175
K		Fitzgerald, Wm.....	340
Kahn and Wassermann Tests for Syphilis, The.....	203	Flageolle, Jos. W. B.....	179
Kahn Test Now Used by Army and Navy.....	143	Fulliam, Edmond B.....	146
Keokuk Medical Graduates to Hold Reunion.....	215	Ghrist, Jennie.....	340
L		Graham, Jas. Harlow.....	179
Laboratory Notes.....	103	Graham, William Frank.....	458
Legality of State Regulation of the Practice of Medicine, The.....	324	Grant, Chas. S.....	179
Lengthening Life.....	418	Henderson, Jos. George.....	267
Lewis Family, The.....	26	Hobson, Abraham J.....	110
Lister Centenary, 1827-1927.....	325	Hollowbush, Joseph.....	458
Lister Memorial Committee, The.....	139	Irwin, C. H.....	179
Liver Therapy in Pernicious Anemia, Walter L. Bierring, M.D.....	367	Krider, Edw. E.....	340
M		Linn, A. M.....	380
Malta Fever, Leo R. Woodward, M.D.....	312	Lintleman, Fred.....	180
Malta Fever in Iowa, A. V. Hardy, M.B. (Toronto).....	414	Lonsbury, Benjamin F.....	458
Malta Fever Investigation.....	451	Lovett, I. M.....	304
Marriages.....	218, 304, 337, 379, 424	McGuin, Geo. Bronons.....	111
May Day Adds a New Note.....	171	McKittrick, Salathiel Corydon.....	379
		Mehler, Frank C.....	338
		Molloy, Edward.....	111
		Morgan, Benjamin F.....	218
		Mullin, John P.....	267, 304
		Norton, Myrta Edith Morgridge.....	267
		O'Keefe, Chas., Jr.....	179
		Page, Herbert William.....	27



	PAGE		PAGE
Patty, Louis Greenlee .....	457	Resolutions Adopted by the State Medical Society of New York Through the Council.....	106
Pennington, J. Rawson.....	180	Reunion of the Three Medical Schools that Once Flourished in Keokuk, from 1849 to 1907.....	291
Pettit, James W.....	111	Right Sided Abdominal Pain, A. A. Schultz, M.D.....	53
Rockey, A. E.....	218	Rulings in Action Against Roentgenologist—Evidence.....	142
Rust, Josephine W.....	179	Rupture of the Uterus During Pregnancy, Orson A. Kellogg, M.D. ....	22
Salmon, Thomas William.....	380	S	
Sherlock, Peter J.....	267	Salt in Medicine, Thos. G. Orr, M.D.....	427
Shope, C. C.....	180	Sale of Ultra-Violet Generators Directly to the Public, The.....	377
Sievers, H. H.....	70	Scarlet Fever Control, James E. Dyson, M.D.....	201
Smith, N. M.....	340	Scarlet Fever Prevention by Biologicals, Don M. Griswold, M.D.....	227
Stroup, Elwood Rush.....	179	Scene in "Lost River Valley".....	205
Swett, Percy Walter.....	425	Sheppard-Towner Law, The.....	138
Tidd, Chas. H.....	458	Silver Compound.....	148
Weir, Robert F.....	379	Sketch of the History of the Mayo Clinic and the Mayo Foundation.....	59
Wilcox, Vinton Stark.....	424	Smoot Narcotic Bill.....	29
Wood, Percy R.....	218		
Young, Harry.....	179	SOCIETY PROCEEDINGS—	
Observations on Infections of the Maxillary Sinuses, Jesse B. Naftzer, M.D.....	401	American College of Physicians.....	35
Observations in Rhinology, W. W. Pearson, M.D.....	442	Annual Fall Clinical Meeting.....	418
Officers of the National Board of Medical Examiners.....	424	Annual Health Meeting.....	67
One Hundred Thousand Dollars Offered for Conquest of Cancer.....	104	Austin Flint-Cedar Valley Medical Society.....	217, 330
Operations for Prolapsus Uteri in Patients Past the Menopause, Coral R. Amentrout, M.D., F.A.C.S.....	361	Blackhawk County Medical Society.....	107
Oto-Laryngological Clinic, Max A. Goldstein, M.D.....	129	Boone County Medical Society.....	32
Our State's Health, James Wallace, M.D.....	51	Botna Valley Medical Society.....	35, 456
P		Brewer County Medical Society.....	302
Painful Heel, The.....	168	Buchanan Medical Society.....	174
Periodic Health Examinations, Charles Addison Elliott, M.D.....	82	Buena Vista County Medical Society.....	107
Perkins, Haskell-Klaus Law, The.....	138	Butler County Medical Society.....	264
Personal Mention.....		Calhoun Medical Society.....	107, 216
36, 68, 110, 146, 175, 217, 267, 304, 337, 379, 424.....	457	Carroll County Medical Society.....	66
Physicians in New American Medical Directory, 164,002.....	300	Cerro Gordo County Medical Society.....	32, 66, 108, 264, 302, 329, 421
Pituitary Extracts.....	36	Cherokee County Medical Society.....	144
Pollinosis—"Hay Fever".....	268	Clayton County Medical Society.....	378
Pondville Cancer Hospital, The.....	454	Clinical Congress of Physical Therapy.....	331
Postgraduate Medical Instruction in Belgium.....	328	Clinton County Medical Society.....	174
Pre and Post Operative Treatment of Major Surgical Cases, E. B. Howell, M.D. and F. A. Hecker, M.D.....	439	Decatur County Medical Society.....	456
Preliminary Report of Commission on Medical Education, January, 1927.....	206	Des Moines County Medical Society.....	174
Preparation of Patients for Operation, F. K. Burnett, M.D.....	434	Des Moines Valley Medical Association.....	303, 330
Prescribing of Whiskey by Doctors, The.....	239	Dubuque County Medical Society.....	216, 202
Present Status of the Treatment of Syphilis of the Central Nervous System, The, John I. Marker, M.S., F.A.C.P.....	358	Fayette County Medical Society.....	174
President's Address, Thomas E. Powers, M.D.....	183	Fremont County Medical Society.....	175, 216, 264
President of the United States and the Medical Profession, The.....	238	Green County Medical Society.....	216
Prevalence of Communicable Diseases in Iowa for the Week Ending July 1, 1927, The, Henry Albert, M.D.....	323	Harvey Society Officers.....	423
Prevalence of Communicable Disease.....	372	Hospital Clinical Congress.....	212
Prevention of Accidents, The.....	293	Ida County Medical Society.....	144
Problems in Medical Education and Medical Practice.....	416	Iowa and Illinois District Medical Society.....	331
Problems of the Deaf, Max A. Goldstein, M.D.....	126	Iowa Clinical Medical Society.....	275, 266
Professor Aldo Castellani.....	173	Iowa County Medical Society.....	32, 108, 329
Progress of Medicine, The, W. L. Allen, M.D., F.A.C.S.....	161	Iowa Heart Association.....	266
Proper Recognition of Service, A.....	455	Iowa Public Health Association.....	145
Protein Sensitization.....	182	Iowa State Radiological and Physiotherapy Society.....	109
Q		Jackson County Medical Society.....	33
Quarantine in Cases of Pneumonia.....	173	Jasper and Poweshiek County Medical Society.....	303
R		Johnson County Medical Society.....	66, 108, 144, 174, 216, 264
Rabies, To Prevent.....	341	Kansas City-Southwest Clinical Society.....	68, 109
Regulation of Massage in New York City.....	293	Keokuk County Medical Society.....	264, 329
Regulation of Physicians by Law.....	208	Linn County Medical Society.....	33, 108, 144, 174, 456
Railway Electrification.....	372	Mahaska County Medical Society.....	108, 174, 329
Relation of Internal Medicine to the General Practice of Medicine, F. W. Heagey, M.D.....	233	Marion County Medical Society.....	264
Relation of the Health Department to the Practicing Physician, Henry Albert, M.D.....	307	Marshall County Medical Society.....	108, 329
Report of the Medico-Legal Committee of Illinois.....	28	Medical Society of the Missouri Valley.....	145, 299, 303, 378, 423, 456
		Mitchell County Medical Society.....	303, 378
		Monroe-Lucas-Marion County Medical Societies.....	421
		Northwest Iowa Medical Society.....	265
		Page County Medical Society.....	175, 216
		Palo Alto County Medical Society.....	217
		Plymouth County Medical Society.....	66
		Pocahontas County Medical Society.....	303

	PAGE
Polk County Medical Society.....	33, 144, 264, 265, 421
Program of Inter-State Post-Graduate Assembly of North America.....	331
Ringgold County Medical Society.....	66, 109, 378
Sac County Medical Society.....	217
Scott County Medical Society.....	34
Sioux Valley Medical Association and Sioux Valley Eye and Ear Academy.....	145
Southwestern Iowa Medical Society.....	456
Southern Minnesota Medical Association.....	318
Story County Medical Society.....	265
Tama County Medical Society.....	35, 66, 265, 303, 456
Upper Des Moines Medical Society.....	330
Waverly Medical Society.....	423
Wayne County Medical Society.....	67
Webster County Medical Society.....	67
Western Surgical Association.....	337
Wisconsin State Medical Society.....	109
Woodbury County Medical Society.....	35, 109
Some Clinical Aspects of Toxic Goiter, C. B. Luginbuhl, M.D.....	154
Some Fundamentals in Education, Charles H. Magee, M.D.....	345
Some Notes About Copy for Printing.....	57
Some Viewpoints on Senility, Ralph Lovelady, M.D.....	319
Sphygmomanometer, A New.....	36
State Health Notes, Jas. W. Wallace, M.D.....	448
State Laboratory Fees.....	324
State Medicine.....	100
Sterilization of Defectives.....	377
Subdeltoid Bursitis.....	143
Supply of Physicians in Nebraska.....	455
Surgeon not Proved Negligent in Leaving Sponge.....	61
Surgical Clinic—Pelvic and Abdominal, John Blair Deaver, M.D.....	121
Summer Clinics, Chicago Medical Society, 1927.....	173
Summer Round-up, The.....	170
Symptoms of Heart Disease, The, Merrill M. Myers, M.D.....	388, 458
Syphilis, Robert E. Jameson, M.D.....	285
Syphilis and Heart Disease.....	106

## T

Tissue Diagnosis in the Operating Room .....	140
Thymus Gland, The, Harold A. Spilman, M.D. ....	276
Technicians in Bacteriology and Roentgenology Needed .....	300
Tetanus .....	219
Tomb of Avicenna .....	376
Transactions House of Delegates, Iowa State Medical Society ..	247

	PAGE
Traumatic Origin of Malignant Growths, The	206
Travel Study Club of American Physicians	31, 329
Treatment of Advanced Cardiac Failure, The, Fred M. Smith, M.D.	151
Treatment of Cardiac Failure, The, Verne C. Graber, M.D.	394
Truth about Medicines	adv. p. xxii, Feb.
Tularemia in Iowa in 1926, A. V. Hardy, M.B. (Toronto)	317

## U

United States Civil Service Examination.....	31
United States Leads in Proprietary Medicine.....	420
United States Public Health Service.....	420
United States Public Health Service, Division of Venereal Diseases, Washington.....	201
United States Supreme Court Decision on the Constitutionality of that Part of the Prohibition Act Limiting the Amount of Whiskey Prescribed by Doctors.....	23
Unjustified Operating on Women for Supposed Tumor.....	419
Unusual Location for the Appendix, Chas. S. Hickman, M.D.	57

## v

Vacancies in Veterans' Hospitals .....	300
Van Zandt Appointed Librarian University of Wisconsin.....	452
Village Doctors More Numerous but Work Harder Than City Colleagues.....	63

## W

What Are We Doing with Cervical Carcinoma?, K. L. Johnston, M.D.-----405  
Year's Internship Required of Applicants for License to Practice Medicine in Iowa, A-----103

PORTRAITS—

Brooks, Thos. K.	79
Brooks, Alfred L.	177
Dickinson, W. H.	79
Eschbach, H. C.	176
Grimmel, Francis C.	79
Hull, A. Y.	79
Krider, Edw. E.	340
Linn, A. M.	380
Mehler, Frank C.	339
Past Presidents	opposite 120
Powers, Thomas E.	opposite 113
Rawson, C. H.	79
Whitman, H. L.	79
Wilcox, Vinton Stark	424

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, JANUARY, 1927

No. 1

## EXPERIENCES IN NEUROLOGIC SURGERY\*

ALLEN B. KANAVAL, Chicago

Professor of Surgery, Northwestern University Medical School,  
Chicago

The study of neurologic surgical problems is one of the most fascinating in all medicine, since it demands a knowledge of complicated anatomy and incompletely understood physiology, coupled and balanced reasoning and a technical skill of the highest order. The day is long past when upon the hasty diagnosis of a brain tumor an exploratory craniotomy, ending in a decompression, should be performed. To be sure, the results in the best of clinics fall far short of what could be desired, but nevertheless each year shows notable advance and in some conditions brilliant progress.

Generalizations upon a moderate experience of one surgeon will have many fallacies, but have the advantage of lacking the notorious errors of collected statistics. For the purpose of the present occasion, only a few of the problems will be discussed and these in general terms, without an attempt at exact classification.

### BRAIN TUMORS

Definite progress has been made in the diagnosis and treatment of brain tumors. Unfortunately, the text-books have fostered the idea that the evidences of brain tumor rest upon the presence of headache, projectile vomiting, choked discs, and convulsive seizures. These are no more the evidences of brain tumor than are vomiting, obstipation, tympanities, and the other evidences of peritonitis indicative of appendicitis. The headache, projectile vomiting and choked discs obscure rather than elucidate the diagnosis, since they are the evidences of increased cranial tension incident in most cases to an excessive retention of fluid in the ventricles, and if we are to diagnose brain tumors properly, we must study

the antecedent symptoms and signs, which indicate the nature and position of such tumors. It follows that if the general practitioner were acquainted with these early signs, the patients would be sent earlier to the neurologist for diagnosis and the surgeon for early removal, at a stage in which the best prognosis can be given, both as to immediate recovery and ultimate restoration to health.

In common with all medical diagnosis today, there is too much stress being placed upon the laboratory, x-ray, and other mechanical aids to diagnosis. The main reliance of the diagnostician must still be the careful and systematic study of the history of the disease, and a careful evaluation of its symptoms and signs in their chronological sequence. This latter is of great importance. For example, the tumor of the cerebello pontine angle early gives definite data as to its location, but the later signs of pressure upon the cerebellum and brain stem confuse the picture. It is the earliest symptoms and signs, that locate the tumor, at a time when the surgeon may attack the lesion with the hope of removal. The x-ray is a valuable adjuvant in certain types of disease, such as the hypophyseal tumors and the meningiomas. The shift of the pineal shadow, as described by Nafziger, when seen, is of real aid in designating the side involved. Much has been said of late years regarding an injection of the ventricles followed by x-ray pictures, and some surgeons and x-ray diagnosticians seem not to fear its general use. So many fatalities have followed its application, that in our judgment it is indicated only where other means of diagnosis have failed. While we have had no deaths, yet in the most careful hands they will occur. In the small group I refer to where we have used it, we have at times secured great aid. There still seems to be an ill-advised tendency in obscure brain lesions to apply the therapeutic test for syphilis.

The surgical treatment of brain tumors is generally of no avail unless there is a definite conception of the location of tumor with a properly

\*Address given at Diamond Jubilee Anniversary of the Iowa State Medical Society, Des Moines, Iowa, May 12, 13, 14, 1926.



planned and executed procedure for its removal. Exploratory craniotomy is successful in very few cases and should be a last resort. While decompression answers the dictates of humanity in relieving headache and helping to preserve the eyesight, the conscientious surgeon will resort to it as seldom as possible. The pitiable condition of these patients justifies the surgeon in assuming most desperate chances in the attempt at complete removal, much as we dislike the high mortality incident to such procedures.

In the last 100 patients presenting brain tumors, coming to our clinic for surgical intervention, in eighteen surgery was not considered advisable, and unless means are found for the complete removal of gliomas, it is believed that this proportion of patients, considered inoperable, will increase. Fourteen of these patients were diagnosed as gliomas, two metastatic carcinomas, and two encephalitis. Of the eighty-two operated upon, six were cysts of the hypophysis—one died in the hospital, and three have been restored to society as working members. There were fourteen diagnosed as adenomas of the hypophysis—three died and of those who lived five were considered successes; two malignancies of hypophysis—one recovered and one died; (some of those diagnosed as adenomas may also have been malignant) five cerebello pontine angle tumors—four recoveries and one death with three successes; three abscesses—two recoveries and one death, with one success; two pineal gland tumors—one recovered, one died; (no success)—three patients, at first supposed to have brain tumor but later diagnosed as encephalitis, of which one was operated upon—no deaths and all recovered; six meningiomas—three successful operations and three deaths. This leaves fifty-five with a diagnosis of glioma—sixteen were not operated upon, and in the others there were twelve postoperative deaths and twenty-seven left the hospital alive, some to live fairly comfortably for a considerable period but most of them to die in a short time. By deaths we mean deaths in the hospital; by successes we mean they were restored for a considerable time or permanently as working members of society; recovered but not successful, that they were still dependent upon their families for support. Judged in this way there were nineteen successes and twenty deaths—not a very brilliant record, but still encouraging. It is evident that our greatest success will be in the hypophyseal tumors, the meningiomas, cysts and tumors of the cerebello pontine angle.

As to the hypophyseal tumors, the cysts which occur most often in the adipose genital type of

disease offer the most complete recoveries if the cyst is eradicated, but there is a tendency to recur. One of our patients was operated upon three times with ultimate complete recovery. It is still believed that the transnasal route offers the best hope for their complete eradication. These patients, while working members of society, have not regained their physiological functions as to growth and sexual life. The adenomas we now believe should be removed by the lateral transfrontal route, and we prefer the two stage operation. This reduces the mortality to a minimum, and permits of satisfactory removal. The safety of the procedure has now reached the stage where we feel justified to advising it in the early stages before evidences of marked eye changes have appeared.

The meningiomas are not difficult of diagnosis, and if early intervention is instituted, the mortality should be low and the success most marked. The tumors of the cerebello pontine angle are also easily diagnosed, and if the profession can be induced to send these patients for early operation, either by gutting or complete removal, the percentage of complete success is high.

The gliomas present a darker picture, but fortunately, there is now a glimmer of hope in the basic pathological studies of Bailey of the Cushing Clinic, by which we are able to differentiate a more chronic and less malignant group from the rapidly growing type. We await now only a more intensive study upon the early clinical history of these types, and a rapid staining method to make diagnosis certain, coupled with new technical procedures to remove the more chronic type from normal brain without undue hemorrhage to offer some hope at least in the care of this most unfortunate group.

#### CORD SURGERY

In surgery of the cord the outlook is more encouraging. Fractures with compression in the caudal region present most brilliant results. As we ascend, however, the prognosis becomes much worse. Elsewhere I have discussed this subject more completely. Tumors of the cord—those lying outside the cord can be removed with a high percentage of good results. The proportion of complete success is great—so great indeed as to justify exploratory laminectomy in case of doubt. We have had no fatalities in such exploration and have repeatedly found tumors in doubtful cases with complete recovery of the patients. The treatment of intramedullary tumors, however, in my hands, have not been satisfactory.



## SURGERY OF THE SYMPATHETIC SYSTEM

We early became interested in this new field of surgical endeavor and have elsewhere presented our conclusions. Unfortunately, in our hands attack upon the sympathetic nerves has not been so successful in spastic paralysis as we had hoped. Hunter and Royle deserve great credit for opening up this field, and we hope that Royle may establish the value of the procedure; but Dr. Davis and myself have not been able to prove either experimentally or clinically that the patients have received improvement greater than they would have had by attention to training and physiotherapy alone. On the other hand, we have operated upon three patients by sympathectomy for vascular disease such as Raynaud's disease, erythromelalgia and allied conditions, and believe that here a new field has been opened that offers a probability of real advance in the cure or alleviation of these diseases. It has been of no value, however, in diseases associated with sclerosis of the vessels.

## NEURALGIA

The most brilliant of our results have come in the patients suffering from trigeminal neuralgia. We have sectioned the sensory root after the Spiller-Frazier method in seventy-three patients, with three deaths—one due to postoperative pneumonia, one to cerebral hemorrhage, and one meningitis. There will always be a small mortality since these patients are generally from fifty to seventy years of age, with its attendant high blood-pressure and changes incident to age. We believe, however, that a mortality of three per cent or less is a safe estimate, particularly since the introduction of the use of local anesthesia in these patients and the increased facility of operation that added experience has given. We have no group of patients suffering from major disease in whom the convalescence is more rapid or the shock less. We are now engaged in a critical study of the after results in these patients, and while no patient would exchange his present state for the intolerable pain previous to operation, there are certain after effects that the surgeon should be acquainted with and warn his patient of the possibility of their occurrence. These may be grouped under three main heads—injury of the seventh nerve, irritation of the cornea, and indefinite distress possibly attributable to the sympathetic. As to the first, we have had three patients who suffered a temporary paralysis of the facial nerve. These all recovered, two in six

weeks and one in ten weeks. It is probable that these always recover, but it does necessitate especial care as to the eye during the period of paralysis. The corneal disquamation is a real source of anxiety. Fortunately, the danger grows less after a few weeks; nevertheless, careful attention should be given to this. The complaints of sympathetic origin, as we believe, comprise various grades of distress described as aching behind the eyeball, creeping sensations in the face, dropping in the ear, etc. Probably 10 to 15 per cent complain of these to a greater or less extent. They are not disabling but in the neurotic patient may give rise to considerable distress. For this reason, while the patient is advised to have a section of the root in all cases, nevertheless if he has never had an alcohol injection and elects to try this, we do not urge the operation because having once had freedom from the pain and having had it recur, he remembers the pain better and is less inclined to complain about trivial aches and pains. It should be emphasized that section should not be performed except in typical cases of trigeminal neuralgia. It would lead us too far afield to discuss the various pains which may be mistaken for this disease, the symptomatology of which when present is one of the most typical of all diseases. If there is any question as to diagnosis, the disease is probably not tic douloureux and operation will fail to cure the pain.

These patients present our most successful group as evidenced by the fact that a considerable proposition have been sent to us by those upon whom we have already operated. They repeatedly come reporting that other patients have declared the operation less painful than an alcohol injection and from a surgical standpoint the smooth convalescence is conspicuous when compared with other major operations.

It is to be regretted that this sketchy review of our personal experience in the major divisions of neurologic surgery, with the exception of nerve suture, must of necessity leave much unsaid that would be of interest to the surgeon dealing with these problems, but it does permit me to emphasize the great advances that this special branch of surgery has made under the impetus given to it particularly by Cushing, and to express the belief that the work now being carried on by a group of young surgeons devoting their entire time to the study of its basic problems bids fair to give American surgery a leading place in establishing neurologic surgery upon a scientific and successful basis.

## CLINIC: INFECTIONS OF THE HAND\*

ALLEN B. KANAVAL, M.D., Chicago

Professor of Surgery, Northwestern University Medical School,  
Chicago

John W. Martin, M.D., Des Moines, Chairman of  
Clinic

Dr. Martin tells me that he believes a considerable percentage of those here would appreciate a talk on some of the fundamental principles connected with treatment of infections of the hand, rather than the presentation of the more complicated and to many of you probably the more interesting problems of restorative surgery. Therefore the larger part of the time that you have kindly given me I shall use in some plain home talk on infections of the hand. We have a few other patients, however, of whose cases I shall speak briefly because they illustrate certain principles of surgery.

The profession has been very kind to me and has sent me a large group of all varieties of hand surgery—a group that has been extremely interesting and which has taught me a great deal. It is not a question of anatomical restoration of the hand, it is a question of the functional restoration of the hand, and the longer I have had the privilege of seeing these cases the more attention I have given to the problem of restoration of function.

For a few moments I wish to draw your attention to some of the congenital anomalies of the hand.

## CASE I. BABY

This little child was born with an absence of the middle finger of the left hand including its metacarpal. The ring finger and the little finger are intact and there is a good index finger and thumb. The index finger is slightly contracted. The same deformity is present in the right hand, with the exception that there is a rather larger section of the metacarpal bone still left in the palm, and that the child has a syndactylism between the index finger and thumb on this side. This brings up for consideration two factors: First, the origin of these congenital deformities, second, what should be done for them.

As you know, the hand is formed from two embryological buds: One a group of the thumb, index finger and the middle finger, the other a group of the little finger and the ring finger. Hence we often have congenital anomalies at the junction of these two anlagen. The surprising thing is how much you can do for a hand of this particular type. In the first place, simply by removing in the right hand the remnant of the

middle metacarpal bone, then cutting the skin and sewing the hand together, you will have a very excellent palm and a not unsightly hand at all. It is wise to bring these segments together, and to do the operation upon these children as early as their general health will permit, since it is the growth of the hand you must anticipate. Early restoration to form prevents continued atypical and deforming growth.

In the other hand we have the web between the thumb and index finger. That brings up the entire subject of webbed fingers. We have had a considerable number of patients suffering from this deformity. I know of no drawings in text-books that will give you in greater degree the impression of the most beautiful technic possible, than the technic showing operations upon webbed fingers, and I know of no operations in the realm of hand surgery, if you follow the drawings in text-books of surgery and operate just as described, that will give poorer results. Simply cutting the web or cutting the web with flaps as shown in the text-books, usually ends in a few years with a web extending out to the junction of the middle and distal phalanges. The operation looks very nice when the patient leaves the hospital, but inside of a year these patients begin to come back and the parents are glad to have either you or someone else operate again. The only procedure I have found entirely successful in the fingers is a cutting of the web back to the junction of the proximal phalanx with the metacarpal bone and the free transplant of skin. The following factors are essential: There must be a web of living skin turned over between the proximal ends of the fingers, otherwise there will be a contraction of the scar tissue that runs between, and as the child grows the web will be drawn out again. Therefore you should always use a transplant of skin, either a transplant of skin at the web or a transplant of skin along the sides, or a combination of the two. In those cases in which it can be done satisfactorily I prefer a complete transplant beginning on one side, going down across the web and coming up on the other. In the case of the thumb the same principle must be used there. However, here you can more easily turn a flap of skin between the thumb and index finger so as to bring the thumb out and away from the hand. In these cases you must transplant a small section of skin along the side of the finger to prevent scar formation. It is especially important that the thumb be brought out and away from the palm so as to set it in such a position that the flexor surface of the thumb can be approximated to the flexor surface of the fingers.

\*Clinical address given at Diamond Jubilee Anniversary of Iowa State Medical Society, Des Moines, May 12, 13, 14, 1926.



This brings up the second question, the problem of the position of the hand for function. I shall speak of that phase in connection with the after-treatment of infections of the hand, but the same principle holds true here. The subject of congenital work is probably not of as much interest to you as that of infections, so we will leave it and take up hand infections.

#### CASE II. WOMAN

A number of months ago this woman had an infected hand which was for a time untreated. The infection was in the palm of the hand and after three weeks there was a spontaneous rupture of the pus which discharged at the junction of the middle finger and the ring finger at the flexor surface in the web. It also discharged upon the back of the hand between the ring finger and the little finger and between the ring finger and the middle finger; in other words, there had been an accumulation of pus in the middle palmar space. This pus followed along the lumbrical muscles and discharged through the web. That brings up a point often referred to in text-books—that the pus burrows through between the bones from the front to the back of the hand. That is a mistake, it does not do that unless there is extensive osteomyelitis. It discharges along the lumbrical muscles at the web. As the result of infection this patient has considerable deformity. She has a contracture of the ring finger, the middle finger and the little finger, so that she is unable to flex these fingers completely. She can straighten them out to a moderate degree. In other words there has been a recovery from the spontaneous discharge of pus from an opening in the middle palmar space. She now has a deformity that requires after-treatment.

#### CASES III AND IV

About ten years ago the first of these patients had an infection in the ring finger as the result of which the finger is fixed in extension. She cannot fully extend it, and, of course, she cannot flex it to any extent. Whether there is a loss of tendon or not I am not certain, but I am inclined to think that there is a considerable part of the tendons remaining. There is no osseous ankylosis but there is a fibrous ankylosis of the joint. The next patient seems to be in almost exactly the same condition except that the affected member is the middle finger, both cases being tendon sheath infections resulting in contracture. The question at the present time is, what can be done for these fingers now?

#### CASE V. WOMAN

This patient has received exceptionally good treatment. She sustained an injury and infection developed in the distal phalanx of the thumb, following which she had an infection in the palm and forearm which was opened and drained, and the patient has really a very satisfactory result for such a severe and disabling infection. This patient had an infection of the tendon sheath of the tendon of the flexor longus pollicis that extended up into the radial bursa, from there it jumped to the ulnar bursa and ruptured in the forearm. This by all odds is the most serious type of infection as regards disability of the hand. It is the type that gives rise to the typical claw-hand. Therefore when the individual has the result as shown here, the little disability left demonstrates the excellent treatment she has received.

#### CASE VI. MAN

This also is a case of tendon sheath infection of the middle finger which the patient has had now for five weeks. It has not been controlled promptly. This brings up the question as to how you should treat these infections in patients who do not recover promptly. We shall speak of that in a little while.

\* \* \* \* \*

We now have before us this group of infections, one patient with an infection in the palmar space, four patients with infection of the tendon sheaths, the treatment of which calls for careful consideration.

There are three major types of infections of the hands: First, lymphatic infections; second, infections of the connective tissue spaces, and, third, infections of the tendon sheaths.

Lymphatic infections comprise the type which jeopardize the patient's life within a week or two. These lymphatic infections begin in any one of the fingers of the hand, and the lymphatics always pursue the shortest course to the back of the hand. In consequence of this, and also because the tissue on the back of the hand is loose, the swelling always occurs upon the dorsum. Patients suffering from lymphatic infection are profoundly ill, with high temperature, with chills, and with red lines of lymphatics running up the back of the hand, the back of the forearm and up into the circulation. The lymphatics from the little finger and the ring finger go up the back of the hand to the cubital glands, the glands of the axilla, and then under the clavicle through the glands of the neck and into the general circulation. The lymphatics of the thumb and index

finger go up the back of the hand to the glands of the axilla without passing through the cubital glands. It follows therefore that lymphatic infection beginning in the ring finger and the little finger is less dangerous to life than are the infections beginning in the other fingers of the hand because they have glands interposed between them and the general circulation.

Let me emphasize that you should not make an incision unless you have a definite reason for that incision, and this indication is that you believe you will be able to evacuate pus. Never make an incision believing that you will thereby drain an indefinite something away and help the patient. This procedure practically always does serious harm. It threatens the life of the individual, it produces local gangrene and local infections that would not have occurred if you had not made such incisions. Along these lymphatics are interposed in the course of their chains small lakes, and here little red spots will appear. If you make incision into them you will find that the patient will have a chill, the temperature will be 105 or 106, and not uncommonly he will die from the infection. In other words, in lymphatic infection do not make incision until such time as you have a definite indication of free pus. Do not open about the glands of the cubital region until you have a destruction of the glands and pus. If you do you will regret the incision.

The next type of hand infections we will consider is that group of which we have shown several examples, tendon sheath infections. These infections are the gravest as regards disability of any with which we have to do. I know of no subject more worthy of your careful consideration than the question of the diagnosis of a tendon sheath infection. The responsibility of this diagnosis must be upon the general practitioner. It is he who has in his charge the livelihood of the patient and the support of his family throughout his life. Upon your judgment and upon your prompt incision and upon your painstaking care depends the question as to whether that man will be a liability upon the community or whether he will be able to recover and support his family, because these patients are usually laboring men. The diagnosis is comparatively easy, yet I know of no infection that is less often diagnosed and less often properly treated than a tendon sheath infection. The diagnosis depends upon a very few simple factors. It depends upon accurate knowledge of the anatomical outline of the tendon sheaths, because the infection is accurately outlined by the anatomical distribution of the sheath except in cases which I shall mention in a few minutes. First, there is marked pain on ex-

tension of the affected finger particularly at the proximal end of the sheath. Second, the portion of the hand involved by the tendon sheath infection is held in marked rigidity; and, third, there is exquisite tenderness over the distribution of the sheath. I know of no condition that is more easily recognized than these tendon sheath infections if you will bear those points in mind. Eradicate from your thought any question of swelling, temperature, etc., and hold those three factors in mind, and when you find them proceed with your surgical treatment.

Now let us take up the fingers in detail. Those of you who care to can take out your pencils and mark on your own hands the anatomical outline of the sheaths and the incisions.

The tendon sheath of the index finger begins at the junction of the distal and middle phalanx and proceeds one thumb's breadth into the palm. It does not begin over the distal phalanx, therefore an incision should not be made over the distal phalanx.

The tendon sheath of the middle finger begins at the junction of the distal and middle phalanx and proceeds one thumb's breadth into the palm, and the same is true of the ring finger. These three fingers, therefore, may be considered together.

When we have a tendon sheath infection of the index finger all the fingers will be held more or less flexed, and if you will press around over the hand the patient will say—it hurts, but when you press down on the tendon sheath of the index finger he will jerk his hand away. Moreover, when you extend the ring finger or the little finger you can draw them out without much pain, but attempt to draw out the index finger and he will immediately complain of severe pain, and this pain will be most marked at the proximal end of the sheath.

Now let us take the really complicated picture. I wish to draw particular attention to the position of the sheaths in the thumb and the little finger. In the case of the thumb the sheath begins at the junction of the distal and proximal phalanx of the thumb, and notice that it does not go across the thenar eminence, it swings around like a bow into the hand. The reason I emphasize this is that if you make an incision over the outer part of the thenar eminence you have to drain through muscle; if you make your incision to the ulnar side of the thenar eminence you separate the muscular bodies, and secure perfect drainage. It extends as the radial bursa into the forearm one thumb's breadth above the anterior annular ligament and this is a rather large sac. This large sac lies dorsal to the deep tendons of the forearm. It



does not lie superficial, it does not lie between the tendons, does not lie anterior to them—it lies back of the tendons. The tendon sheath of the little finger in like manner passes to the radial side of the hypothenar ridge and into the forearm one thumb's breadth above the anterior ligament.

An infection beginning in the thumb, as in the case of the patient we saw a little while ago, will show tenderness at the point where those tendon sheaths are exposed to pressure. There will be no tenderness elicited over the portion of the sheath covered by muscular bodies or deep palmar fascia. Therefore the tenderness in radial bursal infection will be over the flexor part of the thumb. On holding the hands up parallel you will notice a swelling of the arm just above the annular ligament in the infected hand, in contradistinction to the slight concavity seen on the other arm. An infection beginning in the thumb goes to the radial bursa, thence to the ulnar bursa, and the pus fills the ulnar bursa and goes up through this sac as well as along the radial bursa into the forearm. You act upon the assumption that the pus is there when you have made a diagnosis of infection of either the radial or ulnar bursa.

Now, given an infection in the thumb you say to yourself, has it passed over into the ulnar bursa, is the pus in the forearm? If the condition has lasted three or four days you assume it is there. On examining the hand you will note that the concavity of the palm is present, yet you will see that the little finger is held quite rigid, the thumb is quite rigid, you will notice a slight rigidity of the index finger and a little of the middle and ring fingers. In other words, as we progress from the index to the little finger the rigidity becomes greater. The hand looks perfectly satisfactory and on casual inspection one would not think there was anything wrong with it. It is not particularly tender over the palm but as you come to the point where the middle flexion crease of the palm strikes the hypothenar eminence you will find an area there that is markedly tender, and it is the only point in the palm of the hand that is tender. When you have a patient with tenderness at this point, assume that you have a radial and ulnar infection and make the proper incisions for drainage. In those cases you will also practically always find pus in the forearm.

If infection starts in the little finger you will have the rigidity of that finger and moderate swelling in the forearm, and when the radial bursa is involved you will have rigidity of the thumb, but you will not have marked tenderness over the thumb sheath because the sheath is cov-

ered by muscle. Therefore you again assume, having an ulnar bursa infection, that pus is present in the radial bursa and act accordingly. The incision should be made over the anatomical outline of the sheath somewhat to the side, not across the flexor surface, because if you incise across the flexor surface the finger will be deformed by the contraction of scar tissue. Moreover, when you come to repair the tendon you will find that it is difficult to do so because of the scar across the flexor surface and you cannot get a good flap of skin with which to cover the tendon. In the case of the thumb you make an incision the entire length of the sheath and to the ulnar side of the thenar eminence and stop one thumb's breadth distal to the anterior annular ligament. If you continue the incision you will cut the motor nerve that goes to the short muscles of the thumb. Then make an incision over the ulnar bursa at the point of tenderness and make it to the radial side of the hypothenar eminence. On opening the sheath, the pus begins to pour out and you lengthen the incision to give perfect drainage. Then go into the forearm. Never make an incision over the flexor surface. Make your incision along the volar surface of the ulna. If you will palpate your own arm and follow the volar surface of the ulna you will see how close the surface is to the skin. Make an incision about three inches long at that point through the skin and the fascia, which will detach the muscular bodies from the ulna. That opens the space back of the tendons in which the pus accumulates from rupture of the tendon sheaths. Put your finger in and open up the sac of the ulnar bursa and if there is no bleeding simply insert a rubber dam drainage. Do not keep drainage material in these tendon sheaths longer than is absolutely necessary, for the first twenty-four to forty-eight hours at most.

The next point in the care of these cases is that this infection is nearly always a streptococcic infection to start with. On your shoulders rests the responsibility of the function of that hand. If you do not treat this incision the same as you would treat a clean laparotomy, you will lose the tendon. If, on the other hand, you treat it as a clean laparotomy the hand will be well in one or two weeks. If you fail and a staphylococcus infection is superimposed you will almost certainly lose the function of the hand.

The position of function. Remember this: That in all these infections and in all injuries of the hand, your desire is to leave that patient with a functioning hand. Now, the position of function is that in which the thumb and index finger

are opposed. Do not put these hands in a hot voluminous dressing with the hand extended because the thumb will then be at the side of the hand, a position absolutely of no use to the individual. Therefore from the beginning of treatment we should keep a roll in the palm to hold the thumb opposite the flexed fingers of the hand, then if the worst comes to the worst the man can still eat, write, drive an automobile, take money out of his pocket—he can do a thousand things a man can do with half an inch of motion between the thumb and fingers. Otherwise the patient will have to go through a period of physiotherapy and surgical operations designed to restore function that you in carelessness lost. We supplement this treatment by the use of splints, with elastic extension to draw the thumb away from the hand, with tension splints to draw the fingers over into position, and by physiotherapy. I believe that the tension splints referred to are almost as valuable as surgery, because we now get results with them that we never before were able to secure. Therefore I would impress upon you that the treatment of these infections of the hand deals not alone with surgery, but with the problem you must have before your mind all the time—"when this infection ends I must have function in the hand". If you keep that ideal in mind you will then be able to treat these patients with the hope of excellent results.

### NEUROLOGICAL CLINIC\*

GEORGE ELMER PRICE, M.D., Spokane

Former Associate Professor Nervous and Mental Diseases,  
Jefferson Medical College, Philadelphia

Tom B. Throckmorton, M.D., Des Moines,  
Chairman of Clinic

The first case is one directly in line with the talk on encephalitis yesterday afternoon. I will ask Dr. Throckmorton to read the history and then I will present the case.

CASE 1. Male, single, age twenty-six. First seen August 17, 1925.

"Complained at that time of tremor, nervousness, weakness, and difficulty in walking, a condition which had come on two years before. There is nothing of interest in either the personal or the family history.

"The onset was insidious and without apparent cause. No history of diplopia, infection or febrile attack preceded same. Two years ago, while working on a farm in Canada, noticed some

weakness in the right arm; a year later, in the left arm. Movements in his hands became slower and slower, and the patient began to walk in a stooped manner. Gait became gradually slowed up. Speech much slower the last eighteen months. He has never suffered any pain, but thinks he is able to walk and move about better at some times than at others.

"On examination it was found that the voluntary movements were very slow, patient walking with typical Parkinsonian gait—propulsion, right leg rather stiff, with dragging of the toes. Balance poor, unable to balance on either leg, tends to fall backward. Grip good, equal; ataxia (finger to nose) absent. Slight tremor on extending fingers. Pronation and supination movements very slow, more so in right hand. Pupils: right a little larger, both react a little slow to light, very slight in convergence and in accommodation. Ocular movements seem free and equal in all directions. Nystagmus and diplopia absent. Hemianopia absent. Tongue shows some tremor, movements fair. Fundi: Clear, disks normal, vessels normal. Thyroid small. Neck rigid, movements very slow. Masseter groups seem a little weak but equal in power. Fascial expression lines somewhat erased.

"T.99<sup>2</sup> P. 112 B.P. 122-80. Heart and lungs negative. Abdomen negative. Cog-wheel rigidity on passive movement of arms. Abdominal reflexes very active; cremasteric reflexes normal; arm reflexes increased and equal; knee jerks increased and equal; clonus absent; plantar reflex present; sensation to cotton-wool, sharp, dull; heat, cold; and tuning-fork vibrations, normal.

"Laboratory: Urine: single, pale, 1008, clear, faint acid; albumen, faint trace; sugar, blood, pus, casts, absent. Blood: Hb. 90 per cent; WBC 5400 RBC 5,130,000; Poly. 77 per cent; Lym. 20 per cent; large mono. 2 per cent; basophiles 1 per cent; erythrocytes, normal. Basal metabolism—plus 6 per cent. Spinal fluid—clear, pressure normal; 8 mm. Hg. Wassermann negative—globulin negative.

"Diagnosis, epidemic encephalitis, Parkinsonian type.

"Differential: Paralysis agitans without tremor; multiple sclerosis; syphilis.

"Subsequent course: General condition improved, gain in weight. Muscular rigidity less marked. Can write better and more rapidly."

I am going to ask this young man to walk across the platform so you may note his gait, which is slow, rather stiff; he bends forward, and when he turns, he turns awkwardly instead

\*Clinical address given at: Diamond Jubilee Anniversary meeting, Iowa State Medical Society, Des Moines, May 12, 13, 14, 1926.



of with a natural swing as one would expect. The patient tells us he is weak, he has this peculiar gait, and we have the characteristic attitude. (To patient): Is there any difficulty in your speech?

A. Yes, it has slowed up.

Q. What was your work?

A. Farming.

Q. Are you able to work as you did?

A. No.

Q. Why not?

A. Because I can't stand it.

His voice is not typical, but his speech is slow, limited, and monotonous. His face is not a typical Parkinson mask, but there is a smoothing out of the face and the absence of normal facial expression. On putting out his tongue, those of you who are close can probably see that it shows a little tremor. There is distinct tremor of the hands. (Patient seats himself.) You will notice that the movements are all slow even to crossing the knees. The knee jerks are increased, but there is no Babinski. Yesterday afternoon I emphasized in my address the fact that when in doubtful cases you are trying to make a differential diagnosis, if you had that combination of greatly exaggerated knee jerk without Babinski, it referred you to the extra-pyramidal motor system and led you to think of a lesion of the lentículo striate nuclei.

What is the matter with this young man? If we had had no epidemic encephalitis and this man were older, we would at once think of paralysis agitans without the tremor, because the tremor of his hands is not the true tremor of paralysis agitans. You see he has not a passive tremor, the hands are perfectly quiet until he attempts to make a movement. But that combination of muscular weakness, stiffness, the gait, the smoothing out of the face, and slowing up of the speech, all suggest paralysis agitans.

As stated yesterday, we have such conditions following an attack of encephalitis. This gentleman does not know of any acute illness preceding the onset of this condition. All we can obtain is a vague history of colds. Patient had a cold the winter before this trouble came on. That cold may have been the primary infection. Encephalitis frequently comes on with catarrhal symptoms. Sometimes it is believed to be tonsillitis, but usually it is thought to be an attack of influenza.

I called your attention to certain points of difference between the Parkinsonian condition such as this man presents, and true paralysis agitans. One of them was the absence of the fine passive approximating movement of the thumb and forefinger (pill rolling attitude). In holding this

man's hand we find that there is a tremor of the whole hand, there is none of that approximation of the fingers. Another symptom which I have pointed out is the change in facial expression. We do not know in this case when that started. It usually comes on early in encephalitis, but we all know that we do not see true paralysis agitans occurring at this patient's age. So the diagnosis here we can feel certain is the Parkinsonian sequela, or late effect, if you please, of epidemic encephalitis. We have to distinguish the condition from syphilis but there is no evidence of this disease; from insular sclerosis, but there is no intension tremor, no scanning speech, no loss of abdominal reflex, no optic atrophy, no nystagmus, and the spinal fluid is entirely negative.

This young man has noticed an increase in the amount of saliva. In these cases small doses of scopolamin and luminal give a great deal of comfort to the patient, lessening the tremor, and diminishing the secretion of saliva. As to the dosage of these agents; I usually start with 1/200 of a grain of scopolamin three times a day and then increase it up to 1/100 grain t.i.d., sometimes 1/100 gr. q. i. d. With the luminol you can feel your way along, starting with 1/2 gr. t. i. d. and increasing the dose. I usually depend on the scopolamin and then add a little luminol.

CASE II. Male, age thirty-three. Patient was first seen by Dr. Throckmorton October 30, 1923. At that time he said that he had had trouble with his memory for five months, which was about all he complained of. There was a history of an automobile accident seven years prior to this time. At the time of the accident he was not rendered unconscious, there was no bleeding from the nose, mouth, or ear. For three months following the accident he had considerable headache. This does not mean anything, because all of you who are familiar with accident work know that in any severe head injury the patient is apt to have not only headache, but vertigo persisting for some months even when there has been no fracture. In April of 1923 this man fell and was unconscious for two and one-half hours. After this he was confused and had headache. In June of 1923 he had a second attack of unconsciousness, after which he was dazed and had loss of memory. A third attack occurred five weeks before he was examined by Dr. Throckmorton. At time of examination he had tremor of hands; no eye symptoms. Sight tremor muscles of face. Knee jerks unequal, right more active than left.

"Spinal fluid: Eight mm. Hg. pressure; cells 13; globulin negative; Wassermann 4+; blood Wassermann 3+."

Later, November 13, 1923, the right pupil became sluggish to light and later became oval in shape instead of having the normal rounded outline. June 22, 1924, had an unconscious spell with convulsions. After being under treatment for a time, on July 7, 1924, he developed auditory hallucinations. He heard noises, music chiefly, and he felt that he was receiving electrical shocks. He carried on an imaginary conversation with his father who at that time was living in a town twenty miles away. He was also greatly depressed. The hallucinations lasted for about ten days only.

(To patient): Q. What do you complain of now?

A. Nothing.

Q. Do you feel all right?

A. I do. The only thing that bothers me is my speaking.

Q. You have trouble in talking?

A. Yes. My hearing is good. I have heard every word you have said this morning.

Q. What is your occupation?

A. Clothing business.

P. Do you find that your memory is all right now?

A. It is, yes, sir.

Q. You feel, then, that mentally you are just as well as you were five years ago?

A. I am, yes, sir.

Q. How about physically?

A. Good in every way.

Q. Except speech?

A. Yes, the only thing that bothers me is that; there is a little something that comes in my mouth.

Q. I will ask you to repeat a couple of phrases after me so that the doctors can hear you. First, Methodist Episcopal. (Patient repeated it.) Do you notice that slowing? Second, "Round the rough and rugged rock the ragged rascal ran". (Patient attempted to repeat it.) There is a little slowing there.

The patient: Nobody else can say it good either.

That would be a pretty good test for sobriety I think. Will you stand up, please?

A. Yes, sir.

(To patient): I am going to ask you to put your feet close together, close your eyes, and stand without swaying. (Patient responds.) You will notice that he is making a very conscious effort, he is not standing easily. There is certainly a Romberg sign in this case. Take my word for it that the pupil is sluggish, the right pupil is oval in outline and sluggish in action. (To patient):

Hold out your hands and open your fingers. (Patient responds.) I think those who are near can see the marked tremor of the fingers. (Patient dismissed.)

Here we have a man complaining of failure of memory. He had epileptiform attacks, that is, attacks of unconsciousness. He has tremor of the hands, definite eye symptoms and the Romberg sign. What is the first thing we should do in such a case? Examine the blood and spinal fluid, is it not? As we have seen from the history, the spinal fluid findings in this case were: Normal pressure, 13 cells to cubic mm., globulin negative; Wassermann 4+, and the blood gave a Wassermann of 3+.

Interest in this case is not in the clinical signs because it is just an ordinary case of paresis, but in the treatment. This man first was treated thoroughly by potassium iodid and mercurial injections. Under that treatment he made considerable improvement. But, as related in the history, June 22, 1924, following the treatment, he had another one of these epileptiform attacks, and it was also after the treatment that he developed hallucinations. So the remission was not of long duration.

Wanting to do all that could possibly be done, in March, 1925, Dr. Throckmorton sent this man to the Mayo Clinic, having in mind the malarial injection treatment, which is comparatively new. He was treated at the Clinic by the malarial inoculation and after a series of chills was given massive doses of quinin, which, of course, destroyed the plasmodium malariae. He returned home greatly improved and has remained so ever since.

Dr. Throckmorton: He has really improved. Possibly here we have not a recovery, but there is marked remission."

Dr. Price: The question of the malarial treatment is very interesting. Hewitz of Vienna, when treating cases of paresis by intramuscular injections of salvarsan or neosalvarsan, noted that occasionally when he would have suppuration with febrile reaction the patients did much better than ordinarily. This led him to use tuberculin in massive doses to produce this febrile reaction. Later, following along the same line of action, some one conceived the idea of injecting these patients with the plasmodium malariae, and after the patient had reacted thoroughly to that he would have a series of chills with temperature. The result has been most interesting. No less an authority than Dr. Nonne reported 30 per cent of cures. However, I think that is entirely too optimistic a conclusion. I believe that what we



get in these cases is marked remissions, but we do not obtain true recoveries. It is true that many of the patients are able to return to work, as also in some cases they are able to do under the old methods of treatment. I confess to being somewhat pessimistic about the treatment of paresis, because during my years of neurological work I have repeatedly retreated patients who have been "cured" by the various methods. For instance, when salvarsan was first introduced we looked to this agent as a cure for paresis. While we have at times secured remarkable remissions under salvarsan, our patients were not cured. Then we had the Swift-Ellis treatment, which was greatly lauded by many, but we have again the same failure of real cure. While all the observers who have studied the malarial injection method, even the conservative British internists (and I think we can always depend upon the British statistics because they certainly are conservative as compared with those from many of the other countries), report more favorable results by the use of this method than by any other method of treating paresis, yet we must admit that these patients are not permanently cured thereby. I wanted you to see this case simply because of the interest that has been aroused by this new form of treatment. The patient presented certainly has made remarkable improvement; however, a cure has not been effected.

There are different methods of inoculating the patient. The common method is to take 4 c.c. of blood from a malarial patient and inject it subcutaneously into the back of the paretic. If one is in a hurry for reaction, 1 c.c. can be given intravenously, but the subcutaneous method is the one usually employed. The average patient is allowed to have about eight chills, and if the patient is young and vigorous, ten or twelve. Following this quinin is used in massive doses, and then, at the same time or later, the patient is placed upon one of the arsenicals.

CASE III. Male, age sixteen, schoolboy, was first seen November 4, 1922.

"Complaints: Headache, tinnitus, aching through shoulders, back, chest. Headache began about three months ago.

"Family History: Parents living and well. Three brothers, one sister living and well. No migraine in family on either side.

"Personal History: Patient is the youngest child, born at full term, normal birth, weight ten and one-half pounds. Developed normally, breast fed, dentition at six or seven months, walked at one year. Nocturnal enuresis up until

five or six years of age. No serious illness. Pertussis at five years, smallpox at eight years, light attack. No serious accident or operation.

"Started to school at five years. In grade 7-B—makes good grades in work; not irritable or quarrelsome. Appetite good, bowels regular, kidney action normal, sleeps well, no night terrors, weight sixty pounds, height forty-nine inches.

"Onset: After attending the state fair in August of 1922, patient became ill, was nauseated, vomited, and complained of frontal headache. Had no fever or diarrhea. Attack lasted about eighteen hours. Parents thought the boy had eaten something at the fair producing a stomach upset. A week later, a second attack of headache, nausea and vomiting occurred, during the night. Two weeks later a third attack came on during the night. About a week later a competent oculist examined the eyes and fitted glasses. A fourth attack had been experienced on the day of examination during which the patient vomited once.

"Examination: Patient is small of stature with resemblance to female development as far as the torso outline is concerned. Fine hair noted all over body, especially along the cervical region. Hips and breasts padded with fat. No pubic hair. Pupils equal, reacted to light, and in accommodation and convergence. Consensual reflex present. Movements good, no nystagmus, diplopia or hemianopia. Station and gait normal. Heart, lungs, abdomen, negative. Genitals negative. No sinus or fifth nerve tenderness.

"Fundi: Disk edges not entirely clear, veins seem a little full, otherwise negative.

"Reflexes: Both superficial and tendon normal and active.

"Urine: Entirely negative except for faint trace of albumin.

"Re-examination: On January 24, 1923, patient returned for re-examination. About a month previous the vision began to fail but the patient had had no return of headache. Had splendid use of arms and legs, no cranial nerve paralysis; hearing tests showed slight diminution on the left. Station fair, balance somewhat unstable. Arm jerks slow, abdominal and cremasteric reflexes active. Left knee jerk absent even on reinforcement. Right brought out by reinforcement only. Ankle jerks prompt. Plantar reflexes present. Pronation—supination tests a little awkward on left side. Sensory responses normal to cotton-wool touches, sharp and dull, heat and cold, and fork-vibrations.

Skiagram: Pronounced changes in sella. (Dr. Burcham's report.)

"Diagnosis: Pituitary tumor — self decompressed."

Dr. Price: This lad of sixteen looks to be about twelve years of age. He has had a combination of headache, vomiting, choked disk followed by optic atrophy, disturbance in the visual fields chiefly on the temporal side, but not a typical bitemporal hemianopsia.

Now here is a boy of sixteen. Notice that the abdomen is rounded and full, the hips are larger than you would expect to find in a boy of this age, and the breasts are certainly larger. The chief thing to notice is his general stature and appearance, as stated, that of a boy of twelve or thirteen rather than of sixteen. The points here are these: What would give this disturbance of growth? We know that the pituitary gland is the growth gland—if there is any structure that has to do with growth it is the pituitary. If we have disturbance of the anterior lobe alone, we are apt to have changes in the bony structures, either acromegalia or gigantism, depending upon whether or not the epiphyses have become ossified. Disturbance of the posterior part of the gland gives us a different picture. If there is diminished function, we may have the so-called Froelich's syndrome, that is, adiposo-genital dystrophy, where the patients become obese, there is genital atrophy, and increased sugar tolerance. This boy shows a tendency to take on weight and to approximate the female type. I call your attention to the absence of hair under the arms and on the face; there is also entire absence of pubic hair, and the genitalia are certainly not as well developed as one would expect at sixteen years of age. When disfunction of the posterior part of the pituitary occurs in a girl there is amenorrhea, sterility, and sometimes diminution of the pubic and axillary hair. But with the male there is a tendency to approximation to the female type. Therefore, assuming that this boy had disturbance of the pituitary, we find that this hypothesis is confirmed by his other symptoms.

It is more common in pituitary gland lesion to have pressure symptoms than it is to have actual symptoms resulting from disfunction of the gland itself. The optic chiasm, because of its proximity, is the first to suffer, and as a rule there is optic atrophy rather than optic neuritis. The fibres coming off from the center of the chiasm and passing out to the nasal halves of the retina would correspond to the temporal visual fields. So what we usually find in these cases is a bitemporal hemianopsia. This boy did not have a typical bitemporal hemianopsia, but he certainly had more loss on the temporal side than on the

nasal. The headaches are from pressure. If the tumor presses on the floor of the third ventricle, somnolence is frequently added. You remember Dickens' fat boy who wanted to sleep all the time. Dickens really described one of the pituitary syndromes. When this boy had headaches and symptoms of general pressure as Dr. Throckmorton indicated in going over the case, it was probably through involvement of the sella turcica. We have two plates here which beautifully show a change in the sella, and this is Dr. Burcham's report: "May, 1926. X-ray examination, skull: Loss of the bony structure (decompression site) in the right temporal region with destruction of the posterior clinoid process. The anterior clinoid process is club-shaped."

In January, 1923, patient was sent to the Mayo Clinic where ventriculograms were made and finally a right temporal decompression was performed. The report was that at the time of operation a reddish tumor was observed in the region of the pituitary, but they did not attempt to remove it, believing that it was not a removable tumor. They did place this boy upon radium and x-ray treatment with resultant marked improvement. Since that time his weight has gone from sixty pounds to sixty-six pounds, and the height has increased from forty-nine inches to fifty-one inches.

Eye Symptoms: In October, 1922, the ophthalmologist found no changes in the fundus. In January, 1923, "marked optic neuritis and atrophy, greater on the right side. Right visual field was much contracted below and throughout temporal field. Large central scotoma. Left field contracted in all fields, more below and slight on temporal side." Last report May 1, 1926: "Distinct optic nerve atrophy both eyes, right risk more white than left. Right vision; counts fingers at four feet, left vision 20/60."

Aside from the interest of this case from the standpoint of being a brain tumor, the interest lies very largely in the treatment. Many of these tumors are inoperable, and this tumor responds very well to the use of x-ray and radium. One of my friends, while in San Francisco recently, saw a patient with a pituitary tumor that had been thought to be inoperable. The tumor had been treated, as in the case of this boy, with x-ray (I am not sure whether with radium also), and it was very interesting because the case had definite bitemporal hemianopsia which, under treatment, entirely disappeared. Again (and this would rarely happen), there was a calcified area in this tumor and they could literally study the recession of the tumor under treatment, by ob-



serving the change in the position of this calcified area.

As you know, some of the neurological surgeons have perfected operation on the pituitary, as Cushing, but certainly we have here another very valuable method of treatment.

The mentality of this boy is good, he is very bright.

CASE IV. Female, single, age fifty-nine, first seen November 30, 1919.

This lady has suffered a great deal and now has complete relief. It will be interesting to see how the condition was relieved and it is right in line with Dr. Kanavel's talk at the first day's session on his experiences in neurologic surgery.

History: "Complaint, pain in left face which had persisted for two years. Family and personal histories without note. Patient had typhoid at six and again at eighteen years of age. Some gastric disturbance at times, but relieved by alkalis—lime water or soda.

"Onset: First noticed a sharp, stabbing, cutting pain in left face two years ago. Pain was transient in character. Dentist extracted a tooth in lower jaw some months later with apparent relief to the patient for a time. These paroxysmal attacks of pain would recur, confined to the lower left face. The dentist was prevailed upon to extract a second tooth, which had been filled, but no pus sack was demonstrable. This was done on October 19, 1919, with temporary relief for a week or so, but the pain returned and patient sought medical advice. General examination at that time was negative, and the patient, after being informed as to her probable trouble, was referred to her dentist who reported the presence of some necrosed bone in the tooth socket and curetted the same, with relief from pain for about seven months. The pain then returned, and in July, 1920, the nerve was injected with alcohol through the left mental foramen. Following this injection a fair degree of comfort was entertained until March, 1923, when it again became necessary to inject the lower branch through the mental foramen. This was followed by relief for six months when again the nagging pain became noticeable, especially when talking or when the patient was tired. The pain was still confined to the lower jaw region. In October of same year a severe paroxysm came on and again the alcohol injection was resorted to with only fair results, which later prompted the attempt to inject the third division (Dr. Chas. H. Frazier). This was followed by temporary relief, but again in March, 1924, the patient sought relief which was obtained by injecting the nerve at its emergence from the

foramen ovale, the relief from pain lasting this time for six months. In September and again in November the mandibular branch was injected, but the patient realizing that the alcoholic treatment was at best only temporary, finally consented to have the radical operation performed, which was done by Dr. Adson at the Mayo Clinic in August, 1925. Here the sensory division of the left ganglion was avulsed with the production of sensory paralysis in all three branches."

The pain of trigeminal neuralgia has been described by one writer as the most diabolical agony that nature in a hellish mood could devise. I think possibly this lady will agree with that. The interesting point here is the sequence of events; there is no question as to the diagnosis. The pain was first noticed in 1917. A tooth was extracted in 1918. This follows the usual history in such cases. Another tooth in 1919. Alcoholic injection of the mental foramen in August, 1920; another tooth extracted in 1920. Nine alcoholic injections were made in five years at varying times and in various places. Then in June, 1925, all the teeth of the lower jaw were extracted. In August of 1925 she was referred to Dr. Adson of the Mayo Clinic who did a radical Gasserian operation which has given patient relief ever since.

(To patient): Have you had any discomfort since that operation?

A. No.

Q. Have you had severe pain?

A. No.

Q. Any numbness?

A. Yes.

Patients should be warned that numbness will always follow the operation whether on the ganglion or the nerve. As Dr. Kanavel said in his address, if patients hesitate or dread the numbness, then they haven't trifacial neuralgia, because once a patient has experienced the pain of trifacial neuralgia the slight numbness is of little consequence. (To patient): Isn't that so?

A. Yes, sir.

Q. Did you obtain relief from the alcohol injections?

A. At one time for six months.

At first she obtained relief for six months. That again is the usual history. A series of over 500 cases treated with alcohol injections by Dr. Adson gave an average relief of 7.7 months, and with these 500-odd patients the injections averaged  $3\frac{1}{2}$  per patient.

In cases of real trigeminal neuralgia that have existed for some time, I advise the patients to have the radical operation, then if they demur let

them have the alcohol injections until they tire of them, for under the latter treatment they do obtain relief for varying intervals. But sometimes injections fail to give relief, in which event the patient ultimately has to come for the radical operation.

The fifth cranial nerve is one of the most widely distributed and sensitive nerves of the body. It has both a motor origin and a sensory origin. The sensory portion of the nerve corresponds to the atrophied or lost sensory roots of the third, fourth, sixth, seventh and twelfth cranial nerves. The sensory part of the nerve supplies sensation to the face, the nose, the frontal and maxillary sinuses, teeth, tongue, palate, upper part of the pharynx, external auditory meatus, the anterior two-thirds of the scalp and part of the dura. The motor division supplies the pterygoid, masseter and temporal muscles.

Many years ago, I think in about 1884, Meyers of Philadelphia suggested excision of the Gasserian ganglion for relief in intractable cases of trigeminal neuralgia. Later, about 1899, Spiller, also of Philadelphia, advocated removal of the posterior root, which was then done for some time, and finally the last refinement was by Frazier, who felt that he obtained better results by leaving the ophthalmic division of the sensory root. He found that he could leave the ophthalmic division, thereby doing away with the danger of keratitis which sometimes does follow the posterior root operation. Frazier calls this a sub-total resection.

There are various ways of treating these cases, and I will briefly mention two medical methods of treatment.

If a case of trigeminal neuralgia comes to you early, before considering operation put the patient to bed and use strychnia hypodermically, starting with 1/30 gr. t.i.d., which dose can be increased gradually to 1/4 to 1/5 gr., then gradually run down the scale. In many severe cases this treatment will give the patient remarkable relief.

Again, in your arteriosclerotic cases sometimes 1/200 gr. of nitroglycerin every two or three hours will give your patient great relief.

I mention these methods of treatment to make the suggestion that you try these early cases out before resorting to more radical procedures. Injections of the nerve will give relief for varying periods of time, but in every case I think the radical operation should be resorted to when other methods have failed.

## THE FINANCIAL NEEDS OF THE STATE DEPARTMENT OF HEALTH

HENRY ALBERT, M.D., Des Moines  
Commissioner Iowa State Department of Health

In the "Iowa Health Notes" of last month's Journal, it was stated that the work of the State Department of Health is of such a nature that it is intimately related to and in some respects represents the medical profession. To a considerable degree, the influence and standing of the medical profession of the state will be judged—first, by the soundness, sanity and scientific accuracy of information and advice on the nature and prevention of communicable diseases which emanates from this department; second, by the standards of proficiency and high ethical ideals demanded by the State Board of Medical Examiners, and third, by the impartiality and thoroughness with which the Medical Practice Act is administered throughout the state. The ethical standards, altruistic aims and ideals of communal service of the profession will be largely reflected by the competency and effectiveness with which the department carries out programs, the purpose of which is the prevention and possible eradication of preventable diseases. Such being the relationship between the department and the medical profession, it follows that the profession is entitled to be kept informed as to the policy and program of the department and as to how completely or incompletely it is fulfilling its functions. The profession has also the right to express its opinion and offer suggestions regarding the department's work and it should, both for the benefit of the state as a whole and for its own pride and self-interest use its influence in seeing that the department receives financial support commensurate with the demands for service made upon it, and the efficiency and excellence expected in it.

The physicians of Iowa will no doubt be astonished to learn that Iowa stands next to the very bottom of the list of states in the per capita appropriation which this state gives for the support of its State Department of Health. The actual sums appropriated by the different states in the union for their State Department of Health have been ascertained by this department and the per capita appropriation determined according to the population given in the federal census figures. It was only by so doing that we discovered the place in the list that Iowa occupies. In most states the appropriations for laboratories and child welfare work are made directly to the department of health; in some, too, the work of



the state food and dairy departments is also a part of the health department, but even if these items are not included in the appropriations made by these states, as is the case in Iowa, the appropriation for Iowa is still only about one-third of what it is in an average state. Considering the total appropriations, the average per capita appropriation per year in the forty-eight states in the Union is ten and one-fourth cents. The rate for Iowa is three cents. This is figured on a basis of a population of 2,404,021 (federal census 1920) and a total annual appropriation to the department of \$76,410. A comparison such as this would be of little value if it could be shown either that other states were appropriating too much or that Iowa already had ample. Neither is the case. The Iowa department is at present receiving \$59,410 per year (exclusive of the \$15,000 heretofore included for the laboratory at Iowa City).

A few of the activities of the department that have a special interest for the physicians and a definite relationship to their work might be enumerated as follows:

1. Preparation of and dissemination of educational material.

2. Correspondence and advice in reply to direct questions from physicians, averaging about fifty letters a day. This is exclusive of communications originating from the department and bulletins, health letters, etc., which totaled as high as 50,000 in one quarter.

3. The free distribution of silver nitrate for the prevention of blindness and of small lots of diphtheria toxin-antitoxin for demonstration purposes.

4. Cooperation with the physicians in campaigns of prevention, such as the diphtheria prevention campaign.

5. Aid to physicians by conference and by public addresses at their society meetings or in general public health meetings.

6. Conducting medical examinations, keeping records of licenses and investigating reports of violation of the medical practice act. In the first ten months of the year (1926) 100 medical licenses were issued, 38 by reciprocity and 62 by examination. Credentials have to be examined and the onus of collecting and recording all fees for licenses has been thrust upon the department. For other professions a total of 707 licenses have been issued for the ten months, January-October, 1926.

7. Aid has been given the physicians in their effort to improve sanitation in the state through the work of the Sanitary Engineering Division, in the way of inspecting present conditions, giving advice as to future improvements and particularly in aiding in the abatement of stream pollution, a matter which is attracting general attention throughout the state.

8. Through the Division of Vital Statistics much assistance has been given the physicians by this department as they in turn have given invaluable aid to the division in making our records for the state as complete as possible.

A more detailed statement of the activities of the State Department of Health will appear in the forthcoming biennial report to which the attention of all physicians is directed, that they may thoroughly familiarize themselves with the volume, variety and importance of the work of the department. A copy of this report will be sent to every mayor and every health officer in the state.

The State Department of Health is at present receiving financial aid from the International Health Board to the extent of about \$6,000 per year. Were it not for this aid the department would not have been able to function as it has, and could not have initiated much of the work it is proud to have been able to do for the state. This financial aid was given because of our present limited budget in the hope that the necessity for expansion having been demonstrated, the state would deal more liberally with the department. Should the aid from the International Health Board, and it is given only to meet a special need, be denied us without additional revenue from the state, all our work would be handicapped and much of it would have to cease. Besides we are more likely to get outside assistance when the local appropriating bodies show an interest in health work by an effort to provide as completely as possible for the urgent health needs of the state.

#### ASKINGS FOR THE NEXT BIENNIUM

The asking for the budget for the department proper for the next biennial period calls for an appropriation of \$83,900. The department believes that the state should encourage the establishment of local health work on a county basis. Experience in other states has shown that in order to get the work started in a proper manner it is necessary for the state to give some financial aid for a year or two. The department is accordingly asking for an appropriation of \$25,000 for this purpose. This brings the total askings for the department up to \$108,900.

The subject of county health units is discussed more in detail in a separate article by Dr. James Wallace of this department. The only other new items in the askings are for a director of a Division of Nursing Education and a director of a Division of Public Health Nursing.

The work of the director of Nursing Education will be to inspect the fifty-six schools of nursing

in Iowa: to assist them in attaining and maintaining proper standards; to check the credentials of the more than five hundred applicants who annually seek admission to the schools of nursing, and to assist the Board of Nurse Examiners in the performance of their work.

The duties of the director of Public Health Nursing will be as follows: To outline methods of procedure for public health nursing; to prescribe standards; to prevent overlapping of activities of the one hundred ninety-three public health nurses now in the state, and the much larger number who will be placed in service during the next few years; to demonstrate the value of public nursing service in places which do not have such a nurse at present, and to aid in placing nurses in given localities as soon as such localities desire them.

Certain slight increases are asked in connection with certain salaries. Other items are increased somewhat to provide for the increased activities of the department.

The detailed askings for the department will be published and presented to the members of the General Assembly by the governor.

The present annual total and the comparable per capita appropriations for five comparable middle western states are as follows:

	Total	Per Capita
Michigan .....	\$450,025	8½c
Illinois .....	569,443	6¾c
Wisconsin .....	217,820	5 c
Minnesota .....	215,800	4¾c
Iowa .....	76,400	2½c

With the increases asked for, the annual per capita appropriation for the State Department of Health will be less than four and one-half cents—still leaving us near the bottom of the list of states and the lowest of the five middle western states where conditions are quite comparable. We can easily prove that a somewhat larger appropriation than the one asked for would be entirely justified in the interest of health and economy. We do however appreciate that the state is still in a condition of economic depression and have deemed it advisable to present a budget which represents the minimum with which we can effectively carry on the work which may reasonably be expected as the minimum for the department.

All physicians of the state who desire to see their State Department of Health placed on a satisfactory basis are urged to give the askings of the department their active support.

THE FULL TIME COUNTY HEALTH UNIT AND THE PRACTICING PHYSICIAN

JAMES W. WALLACE, M.D., C.P.H., Des Moines  
Iowa State Department of Health

As there is a proposal to extend the adoption of the full time health unit system in the State of Iowa, and as such extension and its success depend upon the concurrence and support of the medical profession, it may not be amiss to point out some of the essential points of contact between such a unit and the physicians practicing within the county. The word "extend" was used because there is at the present time, one full time county health unit operating in the state. Dubuque has the honor of being that county.

It needs no argument to convince the medical profession of the advisability of having full time service, where the volume of work and extent of area are sufficiently great to warrant service of that character. No one would be inclined to dispute the advisability of having full time service in the City of Des Moines or in Sioux City, the only places in the state outside of Dubuque, that have full time service. The resident physicians in these places recognize that it is of distinct advantage to the medical profession as well as for the protection and promotion of public health to have such full time service.

Physicians themselves are the major factors and primary agents in health work, for while they are usually called upon to treat rather than to prevent disease, their advice and treatment must always result in some degree of health education. Besides, they are generally the only ones in the community qualified to give such advice.

There are, however, some features of health work, especially public health work, which may have little attraction for the practicing physician. For these activities he may have neither the time nor the aptitude, and, therefore, usually prefers to delegate them to someone else. This is especially true of health work that demands publicity to insure its success. Due to ethical standards, most physicians are very much averse to doing anything that might be interpreted as "advertising". Hence the publicity necessary to put some health project across is frequently left to lay people, because the physician hesitates to put himself in the lime light. For this reason there have been times when a worthy cause has suffered, because the persons who by training and experience were best fitted to give advice to the people took no part, or a very minor one, in



either the moulding of policy or in giving effect to the project.

This unfortunate result can be prevented where the local physician-health officer is not engaged in the practice of medicine, and being a full time man, has sufficient time to map out a policy and take the lead in carrying it to a successful issue. This does not mean that the full time health officer is the only means of doing health work and that some part time men do not render excellent service. Some of these officers because of natural inclination or genuine desire to promote public health measures in their community, render service far out of proportion to the remuneration they receive; but how much more effective the work of these men would be if they could devote their whole thought and energy to a public health program. These men give good service not because they are part time men, but in spite of it.

Again, the services of a full time man imply no more of state medicine than those of a part time man, in fact since the full time man, in contrast with the part time one, does not practice medicine at all, there is even less suggestion of state medicine in his case than in the case of the other. It is not the policy of the State Department of Health to foster any form of state medicine, and this department is convinced that in the adoption of full time service there is no such implication. It is also fully convinced that the full time system is the first step toward a satisfactory solution of our public health problems.

Iowa is a state in which nearly two-thirds of the population is rural, so any program or form of organization that does not include the rural districts must, in a state like Iowa, be imperfect and unsatisfactory. The form of organization known as the county health unit which includes a full time health officer and one, two, or more nurses has been found to be the most satisfactory for carrying the advantages of health work to every part of the county and giving the same advantage to rural dwellers, as are enjoyed by most of their urban fellow citizens. Formerly, people fled to the country from the cities for healthful living, now the flux has been reversed, because the mortality and morbidity rates are lower in the cities than in the country. The outstanding advantages of the unit, which takes the whole county as its sphere of operations, are (1) that it provides full time service and (2) that the rural part of the county is a corporate part of the health program. For a rural state like Iowa, this form of organization seems particularly well adapted.

The county unit takes the county boundaries as the limits of its activities, though where coun-

ties are small two may by mutual agreement be grouped together. The present political unit for health work (the township) is too small to warrant full time service, and the range of the ordinary citizen's movement has so extended that a communicable disease seldom restricts itself to the township limits. It is advisable, therefore, to have, as now obtains in 65 per cent of the states, a county board of health for each county. This facilitates initiating and carrying out projects of a county wide nature, and provides a county organization to which the health unit can be made responsible. The county unit thus preserves the autonomy of the county, and can be a big factor in inducing the people of the county to make a more general use of the medical facilities that are provided within the county. A competent health officer and his staff can do much by judicious advice in causing people who need medical attention to avail themselves of it. They will often discover cases that hesitate to seek medical advice, and may thus be the means of rendering service to both patient and physician.

In one of our states, the county board of health is the county medical society and the county units operate under the direct direction of this medical society. This is an arrangement not very well suited to all states, because in order to make a success of public health work, we have to link it up with many agencies, such as the school authorities, boards of supervisors, etc.; but in some way the medical profession should be associated with its policy and direction. Perhaps the president of the county medical society should be a member of the county board of health. The county health officer should from time to time officially or non-officially report on his work to the medical society and seek counsel from its members.

That this form of organization is commending itself to the health workers in the United States of America is manifest by the fact that already one or more units have been established in thirty-five different states, and in some states, notably Ohio, North Carolina and Alabama, nearly every county with any considerable population has a county health unit. At the close of 1925, 307 units were operating and a considerable number of new ones have already been added in 1926. The unit has proven its suitability and effectiveness, else the United States Public Health Service would not commend it so highly or advocate it so strongly, nor would voluntary agencies that donate money for health purposes so generously support it, were they not convinced that it is one of the most profitable ways of investing money for health work.

A number of county medical societies in Iowa

have within the last two or three years had the proposal to establish these county health units brought to their attention, and the opinions expressed have so far as known been favorable to the establishment of such units.

As the medical profession will rightly wield a great deal of influence in moulding legislative opinion, it is hoped that the physicians will aid in securing enabling legislation to provide for county boards of health, and also to give counties so inclined, the right to employ a full time county health officer, a right that they already possess so far as the employment of county health nurses is concerned.

It is further hoped that the commendation and approval of the medical profession will make it possible to start a unit in several counties, in order that it may be determined whether the county health unit is as well adapted to the health needs of Iowa as it has proven itself to be in so many other rural states.

The proposal is to establish these units and by so doing take advantage of outside financial aid that will be available, because in accepting this aid no sacrifice of policy is made by the state or the county. The financial aid is given on the condition that the State Department of Health will see that it is expended to the best health interests of the county and the state.

These units are not to be demonstration units in the sense that they are conducted on a scale beyond the possibilities of the county itself to support. They are rather to be illustrations of what is within the reasonable acceptance and adoption of any one of the ninety-nine counties of Iowa. The State Board of Health and the Municipal Health Officers' Association have put themselves on record as commending the plan.

May the State Department of Health not count on the medical profession as individuals, if not as a state society to give their support to a proposal that if adopted is destined to yield a rich harvest to the health interests of the state!

---

#### INDICATIONS FOR TONSILLECTOMY\*

W. F. BOWSER, B.A., M.D., Davenport

An infectious focus within the body that disturbs, or menaces, the health and well being of the individual is, in its broadest sense, a clinical problem that not only merits but challenges the careful thought and consideration of the medical profession.

It is well known clinically that a disease pro-

cess as limited to a given organ or region from which extension, absorption, or drainage occurs is frequently present in one of various parts of the body, and as such, may be attended with consequences more or less serious. Among such foci may be a paranasal sinus, a mastoid, an appendix, gall-bladder, prostate gland, diseased teeth, an empyema wherever located, etc.

It is within this category that the pathological tonsil in its causative relation to disease manifestations extraneous to itself has come into the foreground of medical thought. For, it is a significant fact, as supported by observation and clinical experience, that these are not diseases—*per se*. They are secondary phenomena resulting from a local infection—as that of the tonsils—presenting a variable symptomatology.

Recognition of such a focus, and its relative frequency, in its relation to various clinical disturbances that we are called upon to treat should rest upon something more than a casual inspection of the tonsillar region. Though the tonsil, like the appendix, as a possible mischief maker, has long since been held in unsavory repute, it is certainly not to be clinically indicted and subjected to the scalpel treatment on its reputation alone without the support of ample and adequate evidence in each individual case, and with due regard to influences and causes other than tonsillar. It is, however, a fact that the faucial tonsils—for reasons both intrinsic and extrinsic—are peculiarly susceptible to infections, the consequences of which become the subject of concern for the clinician or the throat surgeon consulted. In support of this, we need only refer briefly to some of the underlying factors, many of which are more or less elementary.

The tonsil, like the appendix, is potentially a pathological organ. This is true because conditions are present, as will be shown, within and without the organ that predispose it to disease. In the case of the tonsil, the type of pathology as is commonly observed in tonsillar infections is what it is chiefly because of the presence of three things: First, its readily accessible location that exposes it to the pathogenic activity of the bacterial flora of its immediate environment; second, the peculiarity of its histological structure; and third, the intimate relationship of the organ to the lymphatic system.

Consideration of these basic facts in the light of the patient's history and examination findings, bears directly upon the question as to whether or not in a given case the tonsil is to be regarded as the offending organ, and therefore, whether or not it is properly subject to surgical procedure.

---

\*Read before the Staff of St. Lukes Hospital, Davenport, Iowa, June 15, 1926.



Structurally, and histologically, the tonsils form an integral and important part of the pharyngeal cavity in which they are lodged. Being essentially of lymphoid tissue, they appear very similar to other lymphatic structures, but these differences are to be observed. The faucial tonsils, though a part of the lymphatic system, do not receive lymph from other organs except as they receive it through the perivascular spaces of the circulation. They are, however, provided with efferent lymph vessels and it is through these that pathological products that have been absorbed into the tonsillar structure may enter—as they frequently do enter—the lymph stream which, under such conditions, and as subject to the resistance afforded by the lymphatic nodes enroute, becomes a carrier and through its channels and tributaries a distributor of the products of tonsillar infection—like so much sewage—to parts near and remote in the body.

Furthermore, it is not to be denied, that to the extent that the lymphatic nodes—as those of the upper deep cervical—may afford a series of defense lines, dissemination of infectious and toxic material draining from the tonsillar region may be arrested. That the deep cervical lymph nodes—singly and in chains—as related in a drainage sense with the tonsils may exercise bactericidal and phagocytic properties within their confines is conceivable, and very probably in keeping with the current and established thought of the day.

However, such a lymphatic barrier, in its physical and possible immunizing properties, as set up against a tonsillar infection is always a variable and uncertain factor, and when it has reached the limits of its resistance, its integrity as a defense mechanism breaks down, and in so doing, permits the infectious process behind it to extend into new tissues, and therein, with added vantage ground and increased potency to disturb, if not to seriously menace, the health and well-being of the subject.

With respect to the tonsils, it is important that we recognize that each of the organs contains within its structure a variable number—usually ten or a dozen—of tubular like pits—known as lacunæ or crypts—which open upon its free surface. These lacunæ, or crypts, are lined throughout their extent by a dipping in of the tonsillar mucosa. They are epithelial ingrowths and as such are the embryonic remains of the original invagination of hypoblastic membrane which is pushed as it were into mesodermic tissue to become surrounded by proliferating lymphoid cells furnished by the mesoderm. This invagination at first single becomes subdivided. Its subdivisions,

surrounded with lymphoid elements, are the primitive crypts. It is the presence of these crypts that renders the tonsils potentially pathological organs. Being receptacles in the sense of receiving and lodging foreign matter, they facilitate and readily promote the absorption of various pathogenic products harboring upon the tonsillar surface, or that may be present in the oral and pharyngeal cavities. In explanation: The tonsillar fossa is supported by a tripple musculature having the superior constrictor for its outer wall; the palato-glossus and palato-pharyngeus for its anterior and posterior arches or pillars.

It would seem that the act of deglutition through the action of these muscles to which the tonsil is subject, exerts an influence upon the patency of the crypts. Under normal conditions, the tonsils are compressed by the contraction of these muscles during the act of swallowing in a manner that tends to empty the crypts of their contents upon the free surface of the tonsils; whereas, upon their relaxation and release of tonsillar compression, the crypts reopen and as they do so, debris and foreign material are aspirated into them. As long as these forces, as those of expression and aspiration within the crypts, are sufficiently balanced, we might conceive on these premises that the cryptic structure remains intact and that the tonsillar organs are not diseased. Such a state of equilibrium, however, is far from always being present even in the condition of health, or of apparent health. Observation of tonsillar conditions frequently shows the presence of foreign material—pathologic or otherwise—impacted within the individual lacunæ or crypts. One of the most frequent observations is the presence of such material that can readily be expressed from the crypts in a quiescent tonsil.

Frequently, as is to be expected in these cases, the epithelial lining of the crypts breaks down. When this occurs, as it must occur in all true tonsillar infections, the individual crypts become paths of entry into the tonsillar structure for disease producing germs from the oral and pharyngeal cavities. By their structure, essentially not unlike that of their prototype in embryo, as places of lodgment, the cryptic pits become the avenues and portals of tonsillar disease. They are essentially the weak points through which infections, or the elements of infection, enter the substance of the tonsil. It is in this way that the cryptic structure may be said to be the vulnerable part of the tonsil in that for the reasons mentioned it not only predisposes the organ to disease; it harbors and actively participates in all true infections of the tonsillar structure.

It is these facts—bacteriological, physical, and clinical, and as based upon the elementary principles of infection, location, structure, and lymphatic relationship—that have largely shaped our conception of the tonsils in relation to disease; as innocent or offending organs; and accordingly, under what conditions their surgical removal is indicated.

For purposes of treatment, indications for tonsillectomy can be considered here only on certain general principles and in relation to particular diseases, or disorders, of toxic or infectious character—which may vary from a mild state of disturbance, nutritional or otherwise, attended with few if any observable signs to that of impending or actual illness of greater or less severity and prostration. A reasonably evident relation must at least be conceived to exist between a tonsillar infection and such a disturbance in order to justify a tonsillectomy. That such a relation does exist is abundantly and amply supported on evidence—both bacteriological and clinical.

In accordance with this conception of the tonsils, and in common with other foci of infection, many diseases of obscure or uncertain origin, formerly treated symptomatically, are coming to be recognized as secondary infections—with these foci as sources of supply.

Among such secondary phenomena, notably, is acute inflammatory rheumatism. The old metabolic theories with respect to its origin have very largely been abandoned. It is now quite generally accepted, according to my understanding, that the disease is an infectious process. On the other hand, there is considerable diversity of opinion among clinicians and laboratory workers as to what organisms are specifically active in its etiology. The evidence at this time seems to point to a streptococcus strain with low, or absent, hemolytic properties. Rosenow, and others, by special methods of oxygen tension, have been able to isolate a streptococcus from the blood and affected joints of patients with rheumatic fever which they regard as intermediate in character between the streptococcus viridans and the streptococcus hemolyticus. With cultures from this source, they have, repeatedly, produced non-suppurative arthritis, endocarditis, and pericarditis in rabbits. Rosenow has produced the same results through inoculation with cultures prepared from the flora found in diseased tonsillar crypts. Clinically, it has long since been recognized that a tonsillitis very frequently precedes an attack of rheumatic fever. According to Forcheimer, 80 per cent of the cases of acute rheumatism show a pre-existent or coincident tonsillitis. Discuss-

ing the subject of rheumatic fever, Dr. Frederick Tice says: "Clinical experience and experimental work points more and more clearly to the tonsil as the usual original offender." Again, he says: "The removal of diseased tonsils should be insisted upon, particularly, in children and in young women generally, and in any one who shows a susceptibility to rheumatic fever by a history of arthritis, chorea or endocarditis, or in the presence of a family tendency to develop the disease."<sup>1</sup>

In view of the inference, then, as based upon evidence both bacteriological and clinical that the tonsils are among the foci of infection, if not in many instances the chief focus, of a rheumatic infection, it is only the logical course in every case presenting a rheumatic history to carefully investigate the tonsils, and particularly the tonsillar crypts, for evidence of a primary infection, or a history of one. If the presence, or the history of such infection can be determined, with due consideration always of other foci, tonsillectomy, on general principles, is indicated.

Within recent years, considerable attention has been directed to tonsillar infection as an etiological factor in nephritis of children. The most usual types being the acute hemorrhagic and the subacute. Forcheimer in his *Therapeutics of Internal Medicine*, 1920 edition, says: "Tonsillar infections are another source of acute nephritis, and the child subjected to repeated attacks of tonsillitis should have the tonsils carefully removed. Removal of tonsils lessens the danger of contracting diphtheria, which next to scarlet fever, is the acute infection most liable to be complicated by nephritis." Again, he says: "Acute nephritis not infrequently follows very mild acute infections, especially tonsillitis. Complete removal of the tonsils is advisable in children subject to repeated tonsillar infections, not merely to avoid nephritis, but to ward off attacks of articular rheumatism." Careful inquiry for attacks of sore throat and examination for cervical adenitis in these cases should never be overlooked, as the tonsils may be the offending organs.

With relation to tuberculosis, Chadwick, in the *Boston Medical and Surgical Journal* of August 7, 1924, referring to the juvenile type of the disease points to the tonsils and adenoids as among the portals of entry for the tubercle bacilli which eventually invade the bronchial glands. Sharing in this conception is a substantially large number of the profession, quite generally distributed, whose position and working facilities add par-

1. *Practice of Medicine*—Tice, 1920, vol. ii, pp. 590-593, 599 and 603.



ticular value to their observations and opinions on the relation of tonsillar infections to the incipency of tuberculosis. The careful consideration of the tonsils, then, in all cases where tuberculosis is suspected, and their surgical removal—when indicated, are to be regarded as life saving measures.

Frederick T. Clark of Westfield, Massachusetts, writing in the *Annals of Otology, Rhinology and Laryngology* of the June issue of 1925, makes this statement: "It is well known that throat symptoms in scarlet fever occurring in tonsillectomized patients, are almost invariably slight, even to the point of absence. Severe faucial diphtheria is excessively rare in tonsillectomized patients." He also points out the rarity in his experience of measles in all but the mildest types in patients who have had their tonsils and adenoids removed.

It is the view of the author quoted that the inference is gaining ground that the tonsils and adenoids are the chief foci of infection in scarlet fever, diphtheria, and measles, and it is therefore logical, in his opinion, that tonsillo-adenoidectomy be practiced not only as a prophylactic measure but as a rational means of shortening contagion during acute attacks, in selected cases, and to prevent the frequently attending complications—such as otitis media and nephritis.

That infected tonsils and adenoids in children are responsible for many cases of bronchitis, broncho-pneumonia, sinus diseases, susceptibility to colds, purulent tympanic and mastoid infections is vouched for by such men as Thomas, Wolfe, Porter, Blake, Dean and many others, as reported by Clark in the article just mentioned.

Before the American Medical Association at Atlantic City, New Jersey, in May, 1925, our friend, Dr. Dean, made this statement: "Eighty per cent of our chronic cases of nasal sinus disease in infants and young children have been cured by the removal of tonsils and adenoids without any other treatment."<sup>2</sup>

Time will hardly permit of further discussion except merely to refer to an interesting report on the therapeutic and prophylactic value of tonsillectomy in the active stage of Vincent's angina by Samuel B. Westlake, assistant professor of otolaryngology of the St. Louis University School of Medicine. This report appeared in the *Annals of Otology, Rhinology and Laryngology*, December, 1925, and cites fifteen cases of Vincent's

angina subjected to tonsillectomy with complete and permanent recovery. The author states that in the entire series, the operation was followed by no more severe reaction than that after a tonsillectomy under usual conditions, and that there was no immediate or post-operative hemorrhage and no local or systemic infection discernible.

These reports reflecting the viewpoint of the reasonably conservative portion of the profession, as well as those who have taken a more advanced position in the use of tonsillectomy, emphasize the unquestionable value, and the necessity of the procedure against the infections indicated.

In conclusion: The presence of pus, when it can be expressed from the tonsillar crypts, is the one local sign that is pathognomonic of diseased tonsils. (2) The characteristic injection of the tonsillar arches as present during the usual or quiescent state of the tonsils. (3) The presence of an upper deep cervical adenitis that can be palpated. (4) The history and the physical state of the patient, including a history of acute tonsillar attacks, peritonsillar abscess, and such secondary infections which have been discussed—as are known frequently to be associated with tonsillar infections. (5) A subnormal state of nutrition and physical development as frequently observed in children and as directly related to a tonsillo-adenoid focus of supply. (6) The tonsils should be investigated, and their careful removal considered in all cases of purulent otitis media exceeding six weeks standing. (7) Diphtheria carriers. (8) Hyperplasia of the tonsils with obstruction to breathing is an evidence of a disease process.

These are mere general considerations, suggesting indications for tonsillectomy, and submitted here for purposes of discussion with this comment: with reference to the removal of tonsils, each patient must be studied in the light of his own needs, peculiarities, and contraindications. Tonsillectomy, performed only under conditions when it is properly indicated, without unnecessary trauma or surgical shock, with favorable operating facilities and care, and without undue haste, is to be regarded as a life and health saving measure. On the other hand, to practice such a measure indiscriminately or with indifference to the patient's real interests is not only to be condemned but unfortunately such abuse of the patient's confidence helps to bring so valuable a procedure as tonsillectomy has proved itself to be into a measure of disrepute.

402 First National Bank Building.

2. A. M. A. J., August 1, 1925.



## RUPTURE OF THE UTERUS DURING LABOR

ORSON A. KELLOGG, M.D., Dows

A case of rupture of the uterus during labor which remained incomplete for an hour and a half while awaiting surgical assistance in the country.

The following case of rupture of the uterus during labor seems to the writer to be one of unusual interest because of the fact that it occurred in the country and illustrates the hopelessness of such cases outside of the hospital.

The fact in the case that the child remained inside the uterus with a part presenting through the opening in the fundus, up to thirty-five minutes of the time of the operation would seem to the attendant to indicate that such a case would have had a fair chance could she have had immediate surgical attention, but the time required for the surgeon to come and for preparation was too long, and the labor pains were renewed resulting in the completion of the rupture and the delivery of the babe into the abdomen; thus the unfortunate termination and seven motherless children.

Case M. W., age forty-two, mother of seven living children. I was called to attend this case at her home in the country about 1:00 a. m., October 18th. Arrived about 1:30 a. m.

Patient in rather hard labor, and made an examination as soon as proper preparation could be made. The membranes had ruptured and there was dilatation about the size of a quarter of a dollar; cervix very hard and rigid.

The pains followed one another with only two or three minute intervals. Soon the patient began to complain of the severity of the pains, and after watching the case about thirty minutes gave  $\frac{1}{4}$  gr. morphine per Hypo. which gave a little relief, and in about an hour began giving a little chloroform at intervals.

About 3:00 a. m. the patient complained about the sharp cutting character of the pain in the abdomen, and in a very few minutes more she cried out in agony saying something unusual had happened, and immediately her face took on the appearance of shock and she became very still. At this time, realizing that a uterine rupture was possibly taking place, the abdomen was carefully palpated. The woman being thin it was easy to feel a split in the uterus about three inches long with a part of the child presenting through the rupture. Another dose of morphine,  $\frac{1}{4}$  gr., was given; another physician was called, and a surgeon about fifteen miles away was informed of

what was happening and told to be prepared to operate as soon as possible. The first physician called was at the place in a few minutes and we were busy with the preparation for the operation.

The patient remained very quiet for about an hour, suffering from profound shock, but with no more uterine contractions, pulse 120 to 130, child partially in the uterus and partially in the abdomen as determined by palpation about thirty-five minutes before the surgeon arrived. Pains had again started up before the surgeon arrived and the patient was in a good deal of agony as she was placed on the table, and it was easy to discern by the contour of the abdomen that the child was lying outside of the uterus. The abdomen was immediately opened and both child and placenta found lying free in the abdomen, which was pretty well filled with clotted blood. The uterus was split open longitudinally through the fundus downward looking very much as if it might have been made by a regular Cesarean incision. The uterus was well contracted in the lower part of the abdomen below the child.

The patient, who was practically pulseless during the operation, was kept alive with difficulty until closure of the uterus and abdomen was complete; and she died before she was removed from the table. Death came about 5:15 a. m., about two hours from the time of the apparent rupture and less than four hours from the time of my arrival.

Dr. G. E. Schnug of Dows and Dr. C. F. Osborn of Hampton were associated with me in this case.

---

### CITATION FOR THE AWARD OF THE SOFIE A. NORDOFF-JUNG CANCER PRIZE

The Sofie A. Nordoff-Jung prize for the best contribution in cancer research during the past year has been awarded to Dr. Otto Warburg, director of the department of biology of the Kaiser Wilhelm Institute, Berlin-Dahlem. The award was made on the unanimous decision of the commission.

The novel methods of investigation, developed by Professor Warburg, have opened reliable channels for tests on the metabolism of surviving tissues under varying conditions. With a singular predetermination he has made available an abundance of valuable material through comparative experiments on the processes of disintegration and oxidation of normal tissues and neoplasms. His biochemical attack on the cancer problem presages the most promising results.

Professors Borst, Doederlein, von Romberg, and Sauerbruch, all of the University of Munich, form the awarding commission.

# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, Sr., Editor.....Clinton

RALPH R. SIMMONS, Associate Editor.....Des Moines

## Publication Committee

DAVID S. FAIRCHILD, Sr., Editor.....Clinton

TOM B. THROCKMORTON, Secretary.....Des Moines

OLIVER J. FAY, Trustee.....Des Moines

VERNON L. TREYNOR, Trustee.....Council Bluffs

JOHN F. HERRICK, Trustee.....Ottumwa

## SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII

January, 1927

No. 1

## HEALTH DEPARTMENT CONSIDERATIONS

We are publishing in this number of the Journal two important papers from the Iowa Department of Health, which should arrest the attention of the medical profession of the state. Dr. Albert has reviewed very plainly the financial condition of the department and has shown the handicap under which it suffers. Dr. Albert has gained a well earned reputation in this department of work and has entered upon it with a determined purpose of making health conditions in Iowa what they should be. Dr. Albert recognizes the depressed financial condition even in the face of the assurances on every hand of a high state of prosperity. Whatever the facts, there is no reason why the limits of expenditure for the Health Department of Iowa should be only three cents per capita. This fact is probably not generally known. The commissioner only requests that the per capita tax be increased by one and one-half cents, or altogether four and one-half cents. It is a duty which rests on the medical profession to make clear to the public, particularly the representatives, the true state of affairs. So much has been said about health matters that it would seem we were ready to make adequate appropriations for the maintenance of this important department.

Dr. Wallace presents the question of a better organization of local health officers, on the basis of full time units. In his paper, published in connection with Dr. Albert's plea for a more

liberal provision for our health service, Dr. Wallace shows by unanswerable arguments the advantages of the full time unit, and it only remains for us to urge the profession to read carefully and consider what Dr. Wallace writes.

## ANNUAL CONFERENCE OF SECRETARIES OF CONSTITUENT STATE MEDICAL AS- SOCIATION, INCLUDING EDITORS OF STATE MEDICAL JOURNALS

These conferences, as the above title implies, are brought about for the purpose of considering the various problems that confront the medical profession of the United States. In a country like ours, having so many conditions and interests, often conflicting, to save serious conflicts it is necessary that the various interests get together from time to time to discuss the problems. The political and economic, of course, come first because these problems are of vital importance to all. Until within recent years, the function of a doctor was to prescribe medicine or other means to relieve the sick. This was an easy matter as it involved chiefly individual skill and understanding. Since medicine has become more or less a national affair, two things have become essential, organization and cooperation. The widespread area of the United States, including differences in climate, of soil and production is so vast that it is an extremely difficult problem to prevent the selfish interests of various sections from falling apart, and had it not been that the several states were settled and dominated by a homogeneous people speaking the same language, it is highly probable that the United States instead of being one nation would have been divided into several with quite a different history, and notwithstanding homogeneity of a dominating race we have on several occasions, been on the border line of dissolution. But our wise men have now apparently come to the conclusion that we are permanently united and to make it so it is necessary that every unit of interest shall cooperate, even the medical profession.

When we come together in these annual conferences, including all the states, we realize how far apart we are, not in essential facts but in the details of organization. Of first importance are health plans, essentially the same in all the states, but widely differing in details; for example, New York, Pennsylvania, Massachusetts; Wyoming, New Mexico, Iowa, Nebraska, Indiana; the organization of state medical societies; the states with great cities; states with no cities of importance; and states with no dominating cities but numerous important large towns. Each has its



plans of organization fitting general conditions and by conference and discussion borrowing one from another, the older states with their social traditions and the younger states with no traditions.

A part of the plan of organization is the publication of a state medical journal owned and directed by the State Society. In the beginning, edited by the secretary of the State Society, more as a substitute for the volume of transactions than with an ambition of becoming an independent medical journal, later, as an independent state journal with an independent editor approaching more and more a full time salaried editor, marking the advance of organization of medicine in the state as a directing influence, under the direction of a publication committee, or board of trustees, or a combination of a board of trustees and councilors. This is a detail which should be determined by state conditions. While the editor is under the direction of a constituted board, he should be endowed with a responsible independence calculated to produce an influential journal as a part of the plan of organization. There are other secondary activities, organized to meet local conditions which will develop from time to time.

The conference developed the fact that financial provisions should be made to prepare the way for a proper development of these activities. A weak point in medical organization is an absence of a budget provision. It is too often the case that extraordinary expenditures are made without duly considering how the expenses are to be provided for and the undertaking falls into discredit for the lack of funds. It is now an accepted fact that dues less than \$10 a year are inadequate to carry on modern plans of medical organization and the activities associated with them. But discussion shows that the custodian of the societies' properties, the board of trustees with the councilors, should make up a budget including the expenses of the society and assess the members accordingly, and not to trust to Providence that it will come out right. A moderate surplus should always be provided for. It is only recently that the American people have arrived at the principle that an accurate knowledge of the costs should be ascertained and a provision made for them.

# UNITED STATES SUPREME COURT DECISION ON THE CONSTITUTIONALITY OF THAT PART OF THE PROHIBITION ACT LIMITING THE AMOUNT OF WHISKEY PRESCRIBED BY DOCTORS

The principle involved in this opinion may have a profound influence upon the practice of medicine. Heretofore we have held to the view that only men trained and skilled in the practice of medicine and surgery could properly determine what medicine and agencies should be employed in the treatment of disease. This decision seems to set aside this view. Assuming that the five supreme judges were not influenced by a personal bias in reaching an opinion, we may conclude that Congress is competent to determine how much medicine should be prescribed in any particular case. If Congress should reach the opinion that one gr. of quinine was sufficient the physician would be violating the law and subject to punishment if he prescribed more, or that five drops of tincture of digitalis should be prescribed instead of ten drops. It does not seem material in principle whether the drug be whiskey, morphine or any other drug ordinarily employed by the profession. If it has come to the point where the physician is deprived of the right to exercise his own individual judgment in prescribing a medicine, or in such quantity as the case may seem to require, then it has come about that the doctor is no longer a free agent in the practice of his profession. It may not be said that a physician should be deprived of his right as a free agent when the greatest good to the greatest number is involved, as for instance enforcing the prohibition law. We do not object to a law that forbids the manufacture and transportation of alcoholic liquor, but when it is granted that spirituous and vinous liquors may be manufactured and transported for industrial, sacramental and medical purposes, but when the principle is enforced which deprives the physician of the right to exercise his professional skill in determining how much whiskey he may prescribe in a given period of time, then there is no doubt that we are rapidly approaching state control of the practice of medicine.

In rendering this opinion five of the nine supreme court judges held that the enforcement act was constitutional and that the law limiting the amount of whiskey to one pint in ten days was proper, that is, the medical profession is deprived of its right to prescribe whiskey in accordance with his professional skill and knowledge, to become in fact, a part of an enforcement agency.

*Read the  
Advertisements*



In view of the fact that four of the five supreme court judges presented dissenting opinion, it is quite proper to present in abstract, the grounds for their opinions.

Justice Brandeis, who rendered the majority opinion says, "The Eighteenth Amendment besides prohibiting the manufacture, sale and transportation of intoxicating liquors for beverage purposes, confers on Congress the power to enforce the prohibition by appropriate legislation. That limiting the amount of liquor which may be prescribed for medical purposes is a provision adopted to promote the purpose of the amendment is clear". Now comes in the conflicting opinions of the medical profession, more than all else the discussions and resolutions of the House of Delegates of the American Medical Association during the last ten years which the prohibitionists made use of to the fullest extent and was used with great force in Congress. The majority opinion adds: "That the provision is not arbitrary appears from the evidence considered by Congress which embodies among other things, the lesson of half a century of experience in the several states dealing with the liquor problem".

"Congress in deference to the belief of a fraction of the medical profession that vinous and spirituous liquor have some medicinal value, has said that they may be prescribed in limited quantities according to stated regulations". "Such a finding in the presence of the well known diverging opinion of physicians cannot be regarded as arbitrary or without a reasonable basis. On the whole therefore, we think it plain that the restrictions imposed are admissible measures for enforcing the prohibition ordained by the eighteenth amendment."

"High medical authority being in conflict as to the medical value of spirituous or vinous liquor taken as beverages, it indeed would be strange if Congress lacked the power to determine that the necessities of the liquor problem required a limitation of permissible prescriptions, as by keeping the quantity that may be prescribed within limits will minimize the temptation to resort to prescriptions as pretexts for obtaining liquor for beverage purposes."

In presenting the dissenting opinion by Justice McReynolds we shall omit much that refers to legal questions touching the right of states to regulate state matters which have been discussed in many of our publications and consider only what relates to the medical profession.

"The general design of the federal constitution is to give to the federal government, control over national and international matters, leaving to the several states the control of local affairs. Prior

to the adoption of the eighteenth amendment, accordingly the direct control of the manufacture, sale and use of intoxicating liquors for all purposes was exclusively under the police powers of the state; and there it still remains save in so far as it has been taken away by the words of the amendment. The pertinent words of the amendment are: the manufacture, sale or transportation of intoxicating liquors for beverage purposes is hereby prohibited. Plainly Congress in submitting the amendment, and the several states in ratifying it, meant to leave the question of the prohibition of intoxicating liquors for other than beverage purposes to the determination of the states where it had always been. The limiting words of the amendment are not susceptible of any other meaning; and to extend them beyond the scope of that meaning really is to substitute words of another and different import."

Referring to a recent decision of the United States Supreme Court on the narcotic question published in this Journal a few months ago, the majority opinion states, "direct control of medical practice in the states is beyond the power of the Federal government, Congress therefore cannot directly restrict the professional judgment of the physician or interfere with its free exercise in the treatment of disease. Whatever power exists in that respect belongs to the state exclusively".

Carried to a logical conclusion arguments for the restriction would permit Congress at will, according to the dissenting opinion "to limit the amount to be prescribed to a tablespoonful or a few drops in any arbitrary time or prohibit the manufacture and sale of liquors altogether".

This, then, is the result of a trial case started by Dr. Samuel Lambert of New York and a group of physicians and druggists of that city to test the constitutionality of that part of the prohibition law limiting the amount and the time which a prescription may be written. These men are now under indictment for conspiracy.

Unfortunately for a fair and just consideration of the medical features of the Volstead Act, is the fact that the liquor question is so mixed with politics, that it seems almost impossible to divorce it at present and it may be so until it has served its purpose as a political factor. It is comforting, however, to observe some intelligent discussion in high places which seems to be received with approval by a large section of the press.

General Lincoln C. Andrews in charge of prohibition enforcement suggests a plan, not so much in recognition of the rights of physicians as to the rights of patients. General Andrews says; "Phy-

sicians and their patients are entitled to pure whiskey for medical purposes and at reasonable prices; yet the government is unable to assure either pure whiskey or reasonable prices". Under existing law, the Commissioner of Internal Revenue is responsible for making timely provision for the replenishment of the supply. This action must be taken promptly.

"The Department has given serious consideration to this matter, and in the end believes that the one best practical solution is that Congress shall set up a private corporation which will be in fact a beneficent monopoly, in that it will purchase and own all the medicinal spirits in the country and be the sole source of supply from now on for medicinal spirits.

"This corporation would provide manufacture for replenishment and, under governmental regulation, distribute medicinal spirits direct to the retail druggist. It would buy for immediate delivery in bottles, labeled, sealed and cased, all the private owned stocks; and six or eight distillery warehouses suitably located for efficient distribution.

"The method of financing the corporation is yet under discussion in an endeavor to accomplish the object without government financial support.

"The government would audit the accounts of the corporation from time to time, and the earnings would be limited to assure a reasonable cost to the public."

It would seem that if Congress could enact these recommendations into law, the question so far as whiskey is concerned in medicine would be settled, providing, also, that the physician would be permitted to exercise his own judgment as to the amount prescribed. There is no doubt that honorably inclined practitioners would respect the law. It is not presumed that reputable physicians now or at any time have violated the law, but we are forced to believe that there are physicians outside the pale of respectability who have and will continue to violate the law, if it is to their interest to do so. But a more liberal construction of the law so far as the prescribing of whiskey in the treatment of disease is concerned, would remove any excuse that might be offered to evade the strict interpretation of the law.

---

#### THE LEWIS FAMILY

---

The recent death of Dr. Edwin J. Lewis of Sauk Center, Minnesota, brings to our mind two books, not quite medical but have as their leading characters medical men of recognized gifts.

Dr. Edwin J. Lewis died at the age of seventy-

eight years and is survived by three sons, one Dr. C. B. Lewis of St. Cloud, Minnesota, and one the famous novelist Sinclair Lewis of New York. Dr. Edwin J. Lewis the father, was a much respected country doctor. His distinguished son Sinclair Lewis, was born in Sauk Center, Minnesota, February 7, 1885, surrounded by all the influences of the family of a busy and successful country doctor. The father died at the age of seventy-eight years, August 29, 1926, having spent most of his life, the early part of it, at a time when the small town doctor must be prepared to render every kind of medical and surgical aid, without the advantages of consultation or hospital facilities, and when the time came about, that the country physician could secure these aids, he had reached a time in his professional life when he could rely on his own resources and could get along without these aids, so that when Sinclair Lewis grew up and began to observe things he realized what the country doctor's life meant and when the time came, could readily supply a character for "Main Street". The novelist saw clearly how the small town doctor lived, how he became associated with the village gossips, how it passed into one ear and out of the other, without leaving a trace; how his admirable wife, who could not bear eternally the gossip which in a sense became real to her; while to the doctor himself, it seemed but natural and necessary, as an escape of the overflowing psychology of small-town people, and must be accepted by the doctor; but the more refined sensibilities of his wife finally rebelled against the interminable village gossip, and led to an estrangement more or less friendly, and after a separation during which reflection and a clearer knowledge of the real world, at last led her to find that the best way was to "see it through" by returning to the world of harmless exchange of views concerning neighbors, old and new.

Arrowsmith is more difficult and more complex. Here was a young man who graduated from the medical school of the University of Winnemac, fifteen miles from Zenith, made famous as the home of Babbitt, another of Sinclair's friends. The makeup of the faculty of the Medical University of Winnemac, reminds us of one of the many medical schools in existence when laboratory methods first came into vogue, and of a class of clinics and laboratory institutions which now exist of a rather questionable character. Arrowsmith vacillated between real honest scientific methods of practice, and methods said to carry success. He made heroic efforts to show that real medicine consisted of



reducing sickness to a degree, to laboratory experimentation, but was met at every turn by doubt and ridicule. The public apparently wanted drugs and medicines that would cure. In serving as health officer, he was constantly informed that his laboratory investigations must not interfere with established views, or with the interests of industrial institutions, or reflect on political aspirations, and found himself in constant conflict with "Interests." He found that his want of tact and his inability to make himself useful to "Interests" resulted in reduction in salary below a "living wage". His trial with "clinics" was not more successful. He found that after he was made famous by his laboratory investigations, he was expected to give his endorsement to very questionable products and methods which he knew to be false, and little by little found himself in disgrace. He represented a weak type of men who are constantly in doubt as to the proper course of action. Necessity and need of money for a decent living kept him vacillating between what he thought was right and what was wrong.

Dr. Arrowsmith fell in love, or thought he did at first, with a very desirable young woman, who admired his high ideals, but discovered his weakness, and at last he married a nurse in-training of apparently no ideals but in the end proved a valuable helpmate, and followed him in his brief periods of success and in his days of failure. The picture Sinclair Lewis paints of Dr. Arrowsmith is a painful one in that it represents a man of high ideals but a weak character, and illustrates a class of doctors who under favorable circumstances become very useful, but fail at last because of an apparent necessity of getting on, and not having the strength or firmness of character to continue in definite lines of action. Another point of weakness was his visions of greatness in working out impossible problems of great public helpfulness, which was beyond his ability to accomplish. The story also illustrates the weakness or failure of the public to appreciate the value of real merit, this is shown in the case of Babbitt who is presented as a public idol. The stories called "Main Street" and "Arrowsmith" did not represent his father, Dr. Edwin J. Lewis, but his knowledge of medical practitioners was no doubt gained by his association in a family of doctors. But we have had medical schools like the University of Winnemac and towns like Zenith. We have had doctors like the one in "Main Street". We have had realtors like Babbitt. We may fairly say that not a little of the popularity of Sinclair Lewis' novels, lies in the fact that the reader recognizes so many of the

characters, and how they are fitted into their places.

---

#### OBITUARY—MR. HERBERT WILLIAM PAGE

---

Mr. Herbert William Page died at his home in Farnam, Surrey, England, September 9, 1926, at the age of eighty-one years. Surgeons of the present generation may not recall the work of Mr. Page but surgeons in the service of railways of the generation just passing, will recall a rather active campaign between the advocates of "Spinal Concussion" as held by the famous surgeon, John Ericksen, and those writing in protest.

Mr. Page was surgeon to the London and Northwestern and the Great Western Railways and devoted much of his time to railway surgery. Mr. Ericksen held to the theory that many cases of "Railway Spine" were due to certain changes in the cells of the spinal cord from jars and falls, from fright and other slight injuries would set up a train of symptoms without any discoverable changes in the spinal cord itself, a train of symptoms now recognized as hysteria and neurasthenia. So much was "Ericksen's Spine" in favor for a period of thirty-five years that these cases figured in court almost constantly, and it is said that Ericksen's book cost the railroads of England, for the first twenty years after its publication, more than \$20,000,000 and American roads probably as much. In those days attorneys devoting much of their time to claim cases always had at hand a copy of this book, and for many years before the courts ruled against the reading of medical books to the jury, many pages, even whole chapters of Ericksen's were read to the jury.

It was at this time, in 1883, that Mr. Page published his book "Injuries of the Spine and Spinal Cord". This book was much referred to by railway attorneys and surgeons to offset the influence of Mr. Ericksen's book. It is to be said, also, that as our knowledge of the spinal cord and nervous system increased, Mr. Ericksen in the last edition of his two volume work on surgery retracted his earlier views on "Spinal Concussion" and this claim in damage suits was abandoned. Although Mr. Page's book failed of its purpose to a considerable degree, nevertheless, railway corporations owe Mr. Page a debt of gratitude for the work he did in defense of their interests; his name is no doubt forgotten. The writer was in the midst of this controversy and feels that something should be said in memory of this distinguished surgeon, Herbert Page.



### REPORT OF THE MEDICO-LEGAL COMMITTEE OF ILLINOIS

Dr. C. B. King, Chicago, chairman of Medico-Legal Committee of Illinois presents an interesting report on the work of the committee which is not materially different from that of the Iowa committee, the recommendations and the advice concerning indemnity insurance is similar. It will be seen that the practice of medicine and surgery is not without its hazards and should be carefully thought of. Considering population the proportion of cases is about the same as in Iowa.

To the House of Delegates, Illinois State Medical Society:

During the year that has just passed, we have had thirty-one new malpractice suits, twenty-three in Cook county and eight in the remainder of the state. During the same period of time forty suits were disposed of, twenty-six in Cook county and fourteen in the balance of the state. During the same time, there were thirty-two new claims reported from Cook county and sixteen from downstate. On May 1, we have remaining eighty-six suits, which is the lowest figure we have had since 1921. On May 1 of the respective years, there were pending in 1923, one hundred and one suits; 1924, ninety-four suits; 1925, ninety-five suits; 1926, eighty-six suits.

The total number of suits filed this past year is encouragingly less than the average for the past six or eight years and the proportionate number filed outside of Cook county has decreased. The number of claims reported during the past year has been about the average.

We have been getting the usual number of suits originating in burns and have several troublesome suits, and one claim which will result in suit, that arises out of claim of retained instruments.

The committee has found that most members of the society respond very readily when their assistance is requested but we have found some members who do not appear to realize the duty that is owing.

A large number of the members of the society seem to be carrying malpractice insurance and the committee unanimously endorses that idea. While this increasing proportion that carries insurance may add somewhat to our difficulties in the cases where there is no insurance, it materially reduces the worry of the doctor who has a claim against him to know he is not likely to pay any judgment because he has the insurance policy behind him.

Of the cases disposed of during the past year, none was lost, but settlements were made in some of them, but these were comparatively small amounts that were paid. The only case in which we met with a reverse was one in which the court had directed a verdict for the defendant. The plaintiff took the case to the appellate court and the appellate court reversed the case and sent it back for a new trial on the ground that the court should have allowed the

jury to pass upon it. This new trial has not yet been held.—Illinois Medical Journal.

### ON INSTRUCTIONS AS TO PRESCRIPTIONS FOR NARCOTICS

(Boyd vs. United States [U. S.], 46 Sup. Ct. R. 442)

The supreme court of the United States, in affirming a judgment which affirmed a conviction of violating the Harrison Narcotic Law, says that, in each of the counts on which he was convicted, defendant Boyd was described as a physician, registered as such under the law, and credited with paying the special tax required of physicians, and was charged with unlawfully dispensing—through his written prescription—a stated quantity of morphine sulphate to a particular person, in the absence of a written order from the recipient on practice only, but to enable the recipient to obtain, as actually was done, possession of that quantity of the drug contrary to the law. The prescriptions as set forth were: To Annie Davis, an addict to the use of the drug for twenty-one years, 48 grains, August 2; 48 grains, August 9, and 40 grains, August 13, all in 1923, and to Frank O'Hara, an addict for eighteen years, 30 grains, August 18; 30 grains, August 24, and 30 grains, August 30, all in 1923.

In its charge to the jury the court said that the determinative question was whether the defendant issued the prescriptions in good faith "as a physician to his patients in the course of his professional practice only"; that, if they were issued in good faith, "for the purpose of curing disease or relieving suffering", he should be acquitted; and that if, on the evidence, that question was left in reasonable doubt, he should be given the benefit of the doubt and acquitted. There was more along this line, in the course of which the court said that it was admissible for the defendant in his professional practice to prescribe the drug either for "the curing of morphinism", or for "the relief of suffering from morphinism", if he did so in good faith, and that in determining the question of his good faith the jury should consider the quantity prescribed—whether it conformed to medical standards, and, if it was in excess of such standards, whether there was reason or occasion for the excess. Thus far the charge was in accord with what this court said in *Linder vs. United States*, 45 Sup. Ct. 446, 268 U. S. 5; wherein prior decisions were reviewed and explained.

Further on in the charge the court indicated that it was not admissible for the defendant to issue prescriptions to a known addict "for amounts of morphine for a great number of doses, more than was sufficient for the necessity of any one particular administration of it". Complaint is now made of this. It appears ambiguous, and, if not taken with the rest of the charge, might be regarded as meaning that it never is admissible for a physician, in treating an addict, to give him a prescription for a greater quantity than is reasonably appropriate for a single dose

or administration. So understood, the statement would be plainly in conflict with what this court said in the Linder case. But this court thinks that it could not well have been so understood in this instance. It did not stand alone, but was to be taken in connection with what preceded it, and also with what followed. At the conclusion of the charge, counsel for the defendant made no objection and took no exception to it, but simply asked the court to add the following, which was done:

I am requested to say to you, gentlemen, that in determining whether or not the defendant in prescribing morphine to his patients was honestly seeking to cure them of the morphine habit, while applying his curative remedies, it is not necessary for the jury to believe that defendant's treatment would cure the morphine habit, but it is sufficient if defendant honestly believed his remedy was a cure for this disease.

In instructing you that, if this is true, regardless of whether the course of treatment given by this defendant is a cure, the question is: Was he honestly and in good faith in the course of his professional practice and in the effort to cure disease issuing these prescriptions?

With that addition, the charge elicited no criticism or objection from the defendant, although there was full opportunity therefor. It evidently was regarded as consistent and satisfactory. Besides, in view of what was said in other parts of the charge, this court is justified in assuming that, had the court's attention been particularly drawn at the time to the part complained of now, it would have been put in better form. Certainly, after permitting it to pass as satisfactory then, the defendant is not now in position to object to it.—The Journal of the A. M. A.

---

### SMOOT NARCOTIC BILL

---

W. K. McKibben, executive secretary of the White Cross, has written a letter to the Boston Medical and Surgical Journal concerning the Smoot Narcotics Bill S. 4085 which was published in the August 26th number. We republish the letter as a matter of interest to the Iowa profession.

Editor, Boston Medical and Surgical Journal:

The White Cross is convinced that narcotic addicts are sick people who need the care of physicians like other sick people. May we invite your attention to the Smoot Narcotics Bill (S. 4085) and the identical Green Bill, and to their effect on the medical profession, if they are passed by Congress?

Physicians have for years been hampered beyond endurance by arbitrary regulations whose slightest violation is punished with fines and imprisonment often making it impossible for honest doctors to treat narcotic patients. An even worse result is the creation of organized armies of drug peddlers to whom the addict is forced to go when his doctor is not allowed to give him care.

These restrictions are no part of the law. The Harrison Drug Law expressly provides that its lim-

itations on dealers should not apply to physicians in their regular professional practice. The restrictions are simply Revenue Bureau measures. While issued under color of carrying the law into effect, and doubtless with good intention, they have reversed the intent of Congress and filled doctors with dread of prosecution until they dare not act.

The United States Supreme Court has recently declared some of these regulations unconstitutional. The Revenue Bureau, lest its unwarranted power should slip away, has now come out openly and introduced these new bills, inflicting the extreme penalty on doctors who dispense narcotics unless to a patient in a hospital. It is almost incredible that a Bureau whose sole function is collection of revenue should assume to say that it and it alone is competent to direct American physicians in the practice of their profession. Moreover, if these bills become law it will not only bind the doctors hand and foot as regards narcotic patients, but it will open the way to still further invasion of the freedom of the medical profession. Why may not the Revenue Bureau go ahead and forbid calomel? Why not forbid quinine?

The United States is the only nation imposing such restrictions. In Great Britain the Ministry of Health in a recent official publication deprecates even the registration of addicts as "impairing the confidential character of the relation between doctor and patient".

Many medical journals are already calling on physicians and medical journals to register their protests with their congressional representatives. Enclosed is a memo of some expressions that have come to our hand. Quite possibly you also have already spoken on the subject in your journal, but even so may we not ask you to continue still further your protests? These bills introduced with the prestige of the Revenue Bureau, and backed up by sinister outside influences, will undoubtedly be rushed through Congress in December unless strong and organized opposition overcome them.

Very truly yours,

Wm. K. McKibben,  
Executive Sec'y, The White Cross.

---

### COLLECTION OF BILL—MALPRACTICE COUNTERCLAIM

---

An action was instituted by a physician to recover his bill for services rendered. As happens in a great number of these actions the patient filed a counterclaim charging the physician with negligence and carelessness in his treatment.

The patient had been under the physician's care during her prenatal period. There were no complications during this time. At about the time of delivery the patient went to the hospital. The first stage of labor was protracted and the patient became tired. Proper steps were taken by the physician to resuscitate the patient and give her rest. When examining the patient to determine the extent of



dilatation the membranes ruptured. Thereafter the patient made fairly rapid progress. The second stage of labor was somewhat longer than normal, the uterus not being fully dilated and the use of forceps was considered by the defendant physician and the consultant who had been called in. However, the patient made progress in her labor and was delivered with a slight tear of the perineum, which was immediately sutured. There were no complications after the delivery other than a slight inflammation of the nipples which cleared up within a day, and the patient left the hospital the sixteenth day after delivery. The relationship at that time between the physician and the patient was friendly. He rendered several bills for his services and these not being paid he pressed the patient for payment, but was met by a refusal upon the part of the patient to pay for the services rendered by the physician.

In order to collect his bill an action was instituted. After this action had been pending for some time the physician compromised with the patient, accepting a lesser amount than his bill in settlement of his claim, the counterclaim of alleged malpractice being withdrawn and the action being discontinued.—New York State Journal of Medicine.

---

### THE NEW RULING ON PRESCRIPTIONS FOR LIQUOR

---

We are quoting in part an editorial published in the Journal of the American Medical Association for November 6, regarding prescribing liquor by physicians.

Heretofore a physician who omitted from a prescription for liquor the name of the pharmacist who was to fill it violated a regulation made under authority of the National Prohibition Act. Since October 16, a physician who inserts that name violates the regulation. Over night what was lawful became unlawful. On the day when the change took effect, the news columns of the daily press carried more or less inconspicuous items concerning it. Later, mimeograph copies of the treasury decision by which the change was brought were sent to a selected mailing list. But if the decision has ever been published so as to reach in an official form, through the newspapers or otherwise, the 80,000 physicians holding permits under the National Prohibition Act, the evidence as to the fact is not apparent.

---

### BROADLAWNS, POLK COUNTY PUBLIC HOSPITAL

---

Dr. D. S. Fairchild,  
Clinton, Iowa.

Through the processes of consolidation of the hospital activities of the county, and in perfecting the developments of the various departments, the board of trustees announces the added and improved facilities for service of Broadlawns, Polk County Public Hospital, as follows:

There are three departments, namely, the tuberculosis department, the general department, and the contagious department.

1. The tuberculosis department is located at Seventeenth and St. Joseph avenue and houses the executive offices of the consolidated hospitals. This is a modern and fully equipped 100-bed special hospital for the treatment of tuberculosis, and is dedicated to the eradication of tuberculosis in Polk county. This can only be accomplished by the co-operation of all the physicians and health agencies. Physicians should make application for the admission of patients through the superintendent, who will gladly furnish forms for the purpose. If the patient is a part pay or county case, he is cared for by the hospital physicians. Should you, as family physician desire to follow the progress of your patient, your advice and assistance will be most cordially welcomed. If the patient can pay the rate of \$3 per day, he may retain and pay for the services of his own physician.

2. The general department, formerly the old City Hospital, at 406 Center street, now has a capacity of eighty-five beds. This serves as the emergency unit of the community. Very extensive physical repairs to this building have been completed at considerable expense. The medical service is directed by the active medical and surgical staffs and adjunct consultants. The resident staff consists of three second-year internes who serve under staff direction.

(a) One of the largest G. U. Clinics in the Middle West, also an emergency dressing station, are located in this building. Laboratory and x-ray departments have been moved together and some new equipment added.

(b) A splendid school of nursing is maintained, and entrance requirements have been raised from one year of high school to graduation. Staff members contribute generously toward the teaching of our nurses.

(c) Hospital patients of all departments are admitted through the social service department, which serves as a connecting link between the patient, the hospital and the family and all cooperating social welfare and public health agencies in dealing with the family problems. No full pay or compensation patients are permitted to remain in the general department if physically able to be removed to a private institution.

3. The contagious department, formerly the old detention hospital, now has a capacity of forty beds and is located at Fourteenth and St. Joseph avenue. The two buildings have been reconstructed and re-decorated throughout and complete new plumbing installed. The nursing care is under the supervision of graduate nurses specially trained in the treatment of contagious diseases. Admission is made through the board of health, who notifies the hospital of a need for hospitalization, or by the physician, who may phone the superintendent or medical director. If the patient is able to pay the full rate of \$3 per day, the family physician may attend, co-



operating with the board of health physician and abiding by the technique and regulations of the hospital. If the patient is unable to pay, care is given by the hospital physicians. The service is the same for pay, part pay and free cases. No service is withheld for lack of funds, though a patient who may be cared for as well at home may be refused for lack of room. You will note that our capacity is limited, and our first need is for patients without homes, as those from hotels, schools and lodging houses.

The board of trustees and its officers urge you as a physician to visit your hospitals and to utilize their facilities for the cure and eradication of disease in the county and the advancement of medical science.

Thanking you for the continuance of your best cooperation that these objects may be attained, we are,

Very sincerely,

P. B. Sheriff, Truman Jones, James Fleming, H. W. Byers, Albert Minnis, Mrs. S. Weinstock, C. W. Britton, Members of Board of Trustees. P. B. Sheriff, Chairman; Mrs. S. Weinstock, Secretary.

Admissions Committee—H. W. Byers, Mrs. S. Weinstock, Truman Jones.

Finance Committee—Albert Minnis, Valley Junction; C. W. Britton, Altoona.

Grounds Committee—Truman Jones, James Fleming, Ankeny.

House Committee—Mrs. S. Weinstock.

---

### UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

#### DIETITIAN

Applications for dietitian will be rated as received until December 30. The examination is to fill vacancies under the Public Health Service and the Veterans' Bureau throughout the United States.

The entrance salary in the Public Health Service is \$1,800 a year when no additional allowance is furnished, or \$1,020 a year when quarters, subsistence, and laundry are furnished. After the probational period required by the civil service act and rules, advancement in pay without material change in duties may be made to higher rates within the pay range for the grade, up to a maximum of \$2,600 a year without quarters, subsistence, and laundry, or \$1,800 a year when such allowances are furnished.

The usual entrance salaries in the Veterans' Bureau range from \$1,680 to \$2,040 a year.

The duties are to purchase the food supplies for all messes operated in the hospital; to plan all menus, both for patients on ordinary diets and diets with reference to special diseases; and to supervise the preparation and serving of all dietaries in the hospital, both to patients and personnel.

Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil service examiners at the post-office or custom house in any city.

---

### CIRCULAR M. & S. 65 AMERICAN RAILWAY ASSOCIATION

#### MEDICAL AND SURGICAL SECTION

At the 1926 annual meeting of the section a representative of one of the larger railroads using oil burning locomotives suggested consideration be given to the matter of eye injuries due to heated sand used in cleaning flues in boilers of locomotive.

This subject has been considered briefly and in order to be in a position to more intelligently handle same it will be appreciated if you will advise the secretary on or before August 31st, as to the following:

A. Does your line use oil burning locomotives?

B. If so how many eye injuries has been reported during the past twelve months due to heated sand used in cleaning flues.

C. Are your eye injuries more frequent since starting to use oil burning locomotives as compared with the injuries when coal burning locomotives were used?

On behalf of the committee on occupational diseases and hazards, Doctor J. R. Garner, chairman.

J. C. Caviston,

Secretary.

---

### TRAVEL STUDY CLUB OF AMERICAN PHYSICIANS

New York, September 24, 1926.

Dear Fellow Traveller:

Our recent European study tour was a wonderful success all the way through and offered its participants as much of professional advantages and unbounded hospitality as the memorable trip of 1913 plus some thrilling sightseeing over the most momentous scenic parts of Europe. A short account of the trip, illustrated by pictures, is now being published in the New York Medical Journal and Record and a reprint of it will be sent to you within a few weeks.

We have official invitations before us for our next European trip including Hamburg, Berlin, Jena, Leipzig, Carlsbad, Vienna, Budapest, Salzburg, Reichenthal, Munich and from thence either on to Kissingen, Frankfort and the Rhine resorts or through Switzerland to Vichy or to Italy and home.

This trip will be undertaken in the summer of 1927 or 1928 according to the majority vote of those interested. Its total cost will be about the same as the one of this year, namely, about \$950 from New

York to New York with first-class accommodations and all expenses included.

We will greatly appreciate hearing from you at your earliest convenience whether you are interested and whether you have any suggestions which at this stage could be easily considered.

Yours very sincerely,

Richard Kovacs, M.D.,  
Secretary.

### DEATHS FROM ACCIDENTS

According to the Boston Medical and Surgical Journal, C. B. Scott, president of the National Safety Council of Chicago, states that ten lives are lost in America every hour through accident. Every accident is due to a certain definite specific cause such as carelessness, recklessness, thoughtlessness, ignorance or parsimoniousness.

The cost of accidents in this country amounts to \$5,000,000,000 annually. About 85,000 persons are killed and somewhere between five and ten million persons are injured. In accidents as well as homicides, America leads England and Wales by double the fatality rate.

### JOHNS HOPKINS PLANS REORGANIZATION

The trustees of the alumni council of Johns Hopkins University held a joint meeting, October 25, which was said to be the first of its kind in this country. The president of the university, Frank J. Goodnow, L.L.D., and the executive committee of the trustees were authorized to prepare plans for the realization of the university project of dropping the first two years of undergraduate work. The action was taken on the assumption that the plans will be sufficiently definite by the meeting of the next legislature in January to permit the consideration of the necessary readjustment in the relations between the university and the state.—The Journal of the A. M. A.

### SOCIETY PROCEEDINGS

#### Boone County Medical Society

At the meeting of the Boone County Medical Society on September 17, 1926, at Boone dinner was served at the Holst Hotel after which Dr. H. B. Winnett of Des Moines gave a paper on The Pre Coma Stage in Diabetes. Lantern slides were used to illustrate the paper. Dr. Lynch of Des Moines was a guest of the society.

On October 21 the members of the Story County Medical Society were guests of the Boone County Medical Society. Twenty members of Story county responding to the invitation. Drs. Fay and Burcham of Des Moines gave two very excellent papers on injuries and pathological conditions of the spine, il-

lustrated by slides. The meeting was held at the Elbs Club with dinner at 6:30.

At a meeting of the Boone County Medical Society held on November 18, 1926, in Boone, Iowa, the following resolution was adopted:

That the physicians of Boone county (members of the Boone County Medical Society) endorse the movement for the administration of toxin-antitoxin to the children of Boone and Boone county.

That it be recommended to the superintendents of schools and to the school boards.

This work to be done by the doctors for the same fee paid for making physical examinations.

L. A. Bassett, President,  
M. C. Jones, Secretary.

#### Cerro Gordo County Medical Society

The regular meeting of the Cerro Gordo County Medical Society was held October 19, 1926, at the Chamber of Commerce rooms, Mason City. The meeting was called to order at 8:15 p. m., by President C. E. Dakin, Mason City. After the usual business transactions the following papers were read:

Erysipelas, with case reports, by Dr. J. E. Maret, Mason City.

Classification of Goiters, by Dr. T. A. Burke, Mason City.

Both papers were well presented and a general discussion followed their presentation, making a very profitable program.

The Cerro Gordo County Medical Society held their usual monthly meeting, Wednesday evening, November 24, 1926. A very excellent 6:30 dinner was thoroughly enjoyed by thirty members at Hotel Hanford. Following the dinner the program as scheduled, followed:

Visceroptosis—Dr. B. R. Weston. Discussed by Dr. C. E. Dakin and Dr. G. M. Crabb. Discussion closed by Dr. Weston. Weaning the Baby—Dr. V. A. Farrell. Dr. Farrell very ably covered his subject—no discussion.

Suggestions for the December meeting were received and the following program decided: a general clinic in the afternoon; a 6:30 dinner; following the dinner the election of officers for 1927. The clinical committee will have charge of the afternoon session.

#### Iowa County Medical Society

The Iowa County Medical Society held its regular semi-annual meeting at the public library, Marengo, November 9, 1926. A good representation was present.

Dr. Henry G. Moershel of Homestead gave a case report of Papilloma of the Splenic Flexure.

Dr. E. D. Plass, professor and head of the department of obstetrics and gynecology, State University of Iowa, gave a most interesting paper on Lower Backache in Women. This was accompanied by lan-



tern slide demonstrations. He emphasized the fact that adhesive plaster strapping as well as other supporting measures, such as belts and sacro-iliac corsets, give much relief for the lower backaches even in the presence of an associated uterine displacement.

The society passed a resolution urging all Iowa county school children to be immunized against diphtheria by toxin-antitoxin.

The following officers were elected: President, Ciney Rich, M.D.; vice-president, Fredrick C. Schodt, M.D.; secretary-treasurer, J. J. Sinn, M.D.; delegate state convention, J. L. Augustine, M.D.; alternate, Moershell, M.D. Board of censors: F. W. Bush, M.D., term expires 1927; F. C. Schodt, M.D., term expires 1928; C. H. Hermann, M.D., term expires 1929.

#### Jackson County Medical Society

The Jackson County Medical Society held the annual meeting November 16, in the First National Bank Building, Maquoketa. A supper was served in Pain's Cafe, afterwards the business and scientific program was given.

Officers elected: Dr. F. G. Swift, Maquoketa, president; Dr. Geo. C. Ryan, Lost Nation, vice-president; Dr. D. N. Loosc, Maquoketa, secretary-treasurer; Dr. F. L. Griffin, Baldwin, censor; Dr. Geo. C. Ryan, Lost Nation, delegate; Dr. F. L. Griffin, Baldwin, alternate.

Chapter II, Sec. 2, By-Laws were amended to read: A meeting shall be held on the second Tuesday of January, March, May, July, September and November.

Drs. Frank and Jordan were added to the committee on program and scientific work.

The American Medical Association's plan for medical relief in disaster was approved, endorsed and adopted.

Resolution: Knowing that diphtheria can be prevented by the administration of toxin-antitoxin, the Jackson County Medical Society urge parents of school children to cooperate with the state department of health in the diphtheria prevention campaign.

Resolution: Whereas the Jackson County Public Health Association has set aside \$800 from the proceeds of Christmas seal sales toward securing a county nurse, resolved: That we urge the public to buy liberally of the penny Christmas seals to provide funds for health activities in our county.

Motion carried that the secretary be instructed to buy one ten dollar health bond in Christmas seal sale campaign.

Several interesting clinical cases were reported, and instructive general discussion followed.

D. N. Loose, Sec'y.

#### Linn County Medical Society

The November Post-Graduate Course of the Linn County Medical Society was held in Cedar Rapids,

November 11, 1926, at the Hotel Montrose. The following topics were presented:

Infant Feeding—Its Present Status; The Effect on Peptic Digestion of Various Modifications Used in Infant Feeding. By Julius H. Hess, M.D., professor of pediatrics, University of Illinois.

Skull Fractures, Methods of Diagnosis and Treatment. By C. W. Hopkins, M.D., chief surgeon, Chicago and Northwestern Railway Company. Illustrated by lantern slides.

December Post-Graduate Course of the Linn County Medical Society, Cedar Rapids, Iowa:

Specific Properties of Gold in Tuberculosis, by J. W. Kime, M.D., Fort Dodge, Iowa.

Foreign Protein Injections in Pelvic Infection, by E. D. Plass, head of department obstetrics and gynecology, State University of Iowa, Iowa City. Illustrated by lantern slides.

#### Polk County Medical Society

The Polk County Medical Society met for its regular monthly meeting on October 26, 1926, in the oak room of the Fort Des Moines Hotel. The meeting was called to order by the president, Dr. Thomas A. Burcham.

The minutes of the previous meeting were read and approved.

Clinical cases were called for but none were presented.

#### Program

The Diagnosis of Intestinal Tuberculosis—C. A. Sones, M.D.

Thanatopsis or Death with Lantern Slides—W. E. Sanders, M.D.

Dr. Sones paper was discussed by Drs J. T. Strawn and John H. Peck.

The application, by transfer, from Washoe county (Nevada) Medical Society, of Dr. Henry Albert was presented to the society. Dr. M. L. Turner moved that Dr. Albert be unanimously elected to membership in this society. Duly seconded and unanimously carried.

The secretary then presented the proposition of the society again purchasing subscriptions for "Hygeia" to be placed in the various schools of the county. Dr. Baker moved that the secretary be instructed to subscribe for the same number of subscriptions for "Hygeia" as was purchased last year for the same purpose. Motion seconded and carried.

In accordance with the motion the number of subscriptions to be purchased is fifty.

The secretary then presented a bill from D. E. Moon Printing and Engraving Company for \$13.10 for September and October programs, which was allowed.

Dr. M. L. Turner announced that a member of the Mayo Clinic staff would speak before the Iowa State Association of Insurance Medical Directors early in December and extended an invitation to



members of the Polk County Medical Society to attend.

Seventy-four members were present.

Meeting adjourned at 9:45.

L. K. Meredith, M.D., Sec'y.

— — —

The Polk County Medical Society met for its seventy-fifth annual meeting at the Wakonda Country Club on the evening of December 20, 1926. A very fine meal was served at 7 p. m. after which a short business meeting was held presided over by the president, Dr. Thomas A. Burcham. The minutes of the previous meeting were read and approved. Current bills together with those for the present meeting were presented and allowed. The application by transfer from Pocatello (Idaho) Medical Society of Dr. Charles Sprague was presented to the society. It was moved that Dr. Sprague be unanimously elected to membership in this society. Duly seconded and unanimously carried. The application of Dr. E. J. Kelley was presented to the society and referred to the board of censors. The secretary read the annual secretary-treasurer's report, which was referred to the auditing committee. The president appointed Dr. A. P. Stoner and Dr. J. H. Peck on this committee.

Election of officers: The following doctors were appointed to act as tellers: A. S. Price, E. B. Winnett, N. Boyd Anderson, H. J. McCoy, J. E. Dyson and Robert H. Crawford. On first informal ballot for president-elect, there were 119 votes cast of which Dr. Ralph H. Parker received eighty-nine, the balance were scattered. Dr. M. L. Turner moved that informal ballot be made formal and that Dr. Parker be declared elected as president-elect. Duly seconded and unanimously carried. Dr. Parker was then called on for a speech. Dr. M. L. Turner moved that the by-laws be suspended and further elections be made by acclamation. Duly seconded and unanimously carried. The name of Dr. A. D. McKinley was presented for vice-president. Dr. A. P. Stoner moved that nominations be closed. The president then called for a vote by acclamation. Dr. McKinley was unanimously elected vice-president. A few words were spoken by Dr. McKinley. Dr. W. L. Bierring moved that Dr. L. K. Meredith be re-elected as secretary-treasurer. Duly seconded and carried.

During the election of president-elect, we were very pleasantly entertained by a trio composed of Dr. F. B. Langdon, Dr. H. C. Bone, Dr. C. J. Lohman and accompanied at the piano by Mr. Paul Blakemore. They gave in a very pleasant harmony humorous descriptions of various members of the society at the same time giving a clever take-off of some of the men at the school "Where the West Begins". Following this Dr. Julius Weingart gave the address of the evening. His subject was Fallacies in Modern Education, and as is usual with Dr. Weingart's papers it was a very scholarly and interesting paper. The president, Dr. Burcham, then

gave his "Swan Song", which proved to be a very masterly paper setting forth the recent governmental and state legislature as it pertains to the medical profession. On completion of his paper Dr. Burcham introduced the president-elect, Dr. Wilton McCarthy, who spoke a few words.

The remaining portion of the evening was then given over to cards and dancing. There were twenty-three tables of bridge, each table playing for high score among themselves. The dancing was enjoyed by many—both young and not so young. The party broke up about midnight and everyone apparently had a good time. The programs contained a history of the society ably prepared by Dr. W. L. Bierring, also cuts of the first president of the society and the newspaper account of the first meeting.

Members present, 150; guests, 125; total, 275.

L. K. Meredith, Sec'y.

### Joint Meetings of Scott County and Rock Island County Medical Societies

September 14, 1926

Davenport Chamber of Commerce

Dinner was served at 6:30 followed by a business meeting. Dr. Matthey reported that no action had been taken by the committee assigned to consider a resolution introduced making it unethical for any but a registered physician to give anesthetics. Dr. C. C. Hamilton, of Durant, was admitted to membership on transfer card, and the applications of Dr. Wm. D. Middleton and Dr. Harry Lamb were referred to the censors. Dr. White made a report as delegate to the last State Medical Society meeting.

The program was presented by Dr. Chas. Sutherland, Rochester, Minnesota, whose subject was The Value and Limitations of Cholecystography. There was discussion by Drs. Rendleman, Otis and Matthey.

October 5, 1926

Hotel Fort Armstrong, Rock Island, Illinois

The dinner at 6:30 was well attended. At the business meeting Drs. Harry Lamb and W. D. Middleton were elected to membership. Dr. Donohoe reported no recommendations from the committee considering a resolution making it unethical for nurses or others not registered physicians to give anesthetics. The report was accepted and the committee discharged.

The program was, The Role of the Urologist in General Diagnosis, by Dr. Herman L. Kretchmer of Chicago. He stressed the necessity for distinguishing urological from non-urological conditions such as appendicitis, gall-stones, gastrointestinal disorders, typhoid fever, leukemia, pernicious anemia, tabes, multiple sclerosis and others. Many interesting pyelograms were shown. Discussion by Drs. Ringnell, Carney, Matthey, Otis and Rendleman.

November 9, 1926

Hotel Blackhawk Grill Room, Davenport

Over fifty members of the two societies attended the dinner at 6:30. During the dinner the Scott

county election of officers was held resulting as follows:

President: Dr. A. B. Kuhl; vice-president, Dr. W. H. Meyers; secretary, Dr. G. W. Doolen; treasurer, Dr. L. E. Block; censor, Dr. C. S. Binford; delegate, Dr. P. A. Bendixen; alternate, Frederick Lambach. Delegate holding over; Dr. A. P. Donohoe; alternate, Dr. F. H. Lamb. Censors holding over: Drs. McCarthy and Geo. Braunlich.

A committee to cooperate with the State Board of Health in its effort to stamp out diphtheria in Iowa was appointed: Dr. P. H. Schroeder, school physician, Dr. E. O. Ficke, city physician, and Dr. S. G. Hands. Drs. Rendleman, Harkness and Donohoe were appointed on a committee to revise the by-laws. A committee to arrange for the annual dinner-dance was Drs. Carney, Foley, Kuhl, G. Braunlich and Ott.

On the program Dr. R. D. Mussey, Rochester, Minnesota, discussed: Laboratory Aids in the Toxemias of Pregnancy. He pointed out that these toxemias are caused by or associated with some form of nephritis and urged the use of the various kidney function tests in estimating the severity of the condition and the prognosis in subsequent pregnancies.

Dr. Tom B. Throckmorton, Des Moines, gave a valuable paper on Some Points on the Differential Diagnosis of Functional and Organic Diseases of the Nervous System. He clearly outlined various clinical tests that may be used in this differentiation thus avoiding many pitfalls for the unwary. Discussion by Drs. Weis and Ellis.

#### Tama County Medical Society

The Tama County Medical Society met in Toledo November 12. After a 12:45 o'clock luncheon at the Balcony Tea Rooms the company of doctors and their wives motored to the tuberculosis hospital for the Sax and Fox Indians west of town, said hospital being under the efficient management of Dr. Jacob Breid, where the meeting was held.

Dr. Scarborough of the state hospital at Oakdale, for the treatment of tuberculosis, gave a very interesting talk on the Treatment and Symptoms of Tuberculosis, using several of the Indian patients to demonstrate the symptoms of the different stages of the disease. Dr. Scarborough stated that while many methods of treatment were being used, that, rest was by far the most important element in securing a cure.

After the clinic the nomination of officers for the coming year was in order, and resulted in the following nominations, to be voted on at the December meeting. M. L. Allen, president; R. H. Whalen, vice-president; A. A. Crabbe, secretary-treasurer, and Dr. Allen was also nominated to succeed himself as censor for the coming year.

The following were present. Dr. and Mrs. Breid, Dr. and Mrs. Allen, Dr. and Mrs. Whalen, Dr. and Mrs. Crabbe, Dr. and Mrs. Maplethorp, Dr. and Mrs. Launder, Dr. and Mrs. McLean, Dr. and Mrs.

Kepford of the State Juvenile Home, Toledo, Dr. and Mrs. Scarborough, Oakdale, Dr. Pace, Dr. Meyer, and Dr. Bryant.

Albert A. Crabbe,  
Chairman, Pub. Com.

#### Woodbury County Medical Society

The regular November meeting of the Woodbury County Medical Society was held at Jackson Hotel, Sioux City on Wednesday, November 10, 1926, with the following program.

J. C. Ohlmacher, M.D., Vermillion, South Dakota, spoke on The Possibility of Prevention, Arrest and Cure of Diabetes Mellitus, Based on Clinical and Pathological Evidence.—A plea for early recognition and intervention.

There was a report on the activities of the Woodbury County Medical Society Free Dispensary and Clinic for the year ending October 1, 1926.

Dinner was served at 6:30 p. m.

Roy E. Crowder, M.D., Sec'y.

The annual meeting of the Woodbury County Medical Society was held at the Jackson Hotel, Sioux City, on Wednesday evening, December 29, 1926.

This was the last meeting of a very successful year, at which several important committees reported and officers for the ensuing year were elected.

Dinner was served at 6:30 p. m.

Roy E. Crowder, M.D., Sec'y.

#### Botna Valley Medical Society

The annual meeting of the Botna Valley Medical Society was held at the Preston's Hall, Avoca on Wednesday, November 10, 1926, at 1 p. m.

##### Program

Pyloric Stenosis—Dr. J. A. Henske, Omaha, Nebraska.

Bone Pathology as Revealed by X-ray—Dr. T. A. Burcham, Des Moines.

Head Injuries—Dr. C. L. Campbell, Atlantic.

Cardiac Therapy—Dr. A. Sachs, Omaha, Nebraska.

Gold in Tuberculosis—Dr. J. W. Kime, Fort Dodge.

Prevention and Treatment of Acute Ruptured Appendicitis With Spreading Peritonitis—Dr. Donald Macrae, Jr., Council Bluffs.

#### THE AMERICAN COLLEGE OF PHYSICIANS

Announcement is made that The American College of Physicians will hold its eleventh annual clinical session in Cleveland, Ohio, February 21-25, 1927. Dr. Alfred Stengel of Philadelphia is president of The College and Dr. John Phillips of Cleveland is the chairman of the program committee. The program will be of unusual interest to internists, (including neurologists, pediatricists, roentgenologists, pathologists, dermatologists, psychiatrists and others



engaged in the field of internal medicine). The Cleveland hospitals and the Western Reserve University will co-operate with The College in the presentation of the program. These programs constitute each year a post-graduate week on internal medicine of outstanding merit.

During the mornings, there will be clinics and demonstrations at the various hospitals and in the laboratories of the Western Reserve University; during the afternoon, papers on various medical topics will be delivered by local members of the profession and by members of The College from other parts of the United States and Canada; during the evenings, there will be formal addresses by distinguished guests, American or foreign, and by the president or other representatives of The College.

The American College of Physicians is a national organization in which internists may find a common meeting ground for discussion of the special problems that concern them and through which the interests of internal medicine may have proper representation. Membership in this organization is limited to those in the field of internal medicine. While it is not a limited national society of specialists (mostly prominent medical teachers), it is not co-ordinal with large national or sectional organizations of physicians requiring no special professional qualifications. Its standards are high and many men of distinction in the profession are numbered among its members.

An invitation has been extended by The College to all qualified physicians and laboratory workers to attend the Cleveland Clinical Session. An attendance in excess of fifteen hundred is anticipated.

### PERSONAL MENTION

Drs. Paul A. White and Elmer G. Senty announce that Dr. Arthur A. Garside, who has practiced for three years in Davenport, is now associated with them in intensive diagnosis and the practice of medicine and surgery.

I am announcing I am accepting an appointment with the Emergency Clinic and Hospital of Houston, Texas, consequently am leaving Ames and the firm of Harman and Richardson. It is not without regret that I am leaving Iowa as I have always lived in this state and since my graduation from the University of Iowa in 1915 have always practiced here with the exception of the war period. Dr. E. S. Kenner who heads the recently organized Emergency Clinic was formerly a professor of anatomy at Washington University, St. Louis, and later for many years first assistant at the St. Louis Polyclinic. Sincerely, Dean W. Harman, M.D.

### PITUITARY EXTRACTS

Competition may be the life of trade, but it develops some bizarre contrasts. There is competition in the manufacture of pituitary extracts, and the con-

sequence is that the size of the required dose has been, so to speak, "in the air", one brand being several times as active as another. This situation has at last been remedied by the adoption of an official standard (U. S. P. X), but questions of purity and stability remain to be solved by the manufacturers.

In passing, we may remark that the standard adopted by the U. S. P., and seconded by the Geneva conference of the League of Nations, is the same as that which has long been applied by the house of Parke, Davis & Co., whose product Pituitrin is so well known.

For further particulars in regard to Pituitrin the reader is referred to the advertisement in this issue entitled "Are All Pituitary Extracts Alike?"

### A NEW SPHYGMOMANOMETER

A new mercurial sphygmomanometer, in which several important objections to this type of instrument are overcome, is described by J. L. Wilson, M.D., and H. N. Eaton, A.M., in the November 20, 1926, issue of the Journal of the A. M. A., page 1742. It has no cemented joints, and other common causes of mercury leakage and glass breakage are eliminated by the use of a simple, straight glass tube, held in a resilient mounting which enables the tube to withstand shocks which would otherwise shatter it. Severe tests have proved the sturdiness of the new construction.

The tube is so mounted that it can be removed (as for cleaning) by a simple pressure of the thumb, and replaced with equal facility. Thus, if the glass tube should break, the user can quickly insert a new one himself, without having to return the instrument to the manufacturer for repairs.

The insertion of a new tube does not impair the accuracy of the instrument. Each steel reservoir is



an exact counterpart of the master steel reservoir against which each tube is individually calibrated. Therefore, the scale, which is separately engraved on each tube, is identically accurate for any instrument of this new type.

The design of the instrument (made by the W. A. Baum Co. of New York) was developed along the lines of maximum service and convenience to the

user, without the sacrifice of simplicity and ruggedness, which experience has shown to be so desirable in instruments of this character.

### BOOK REVIEWS

#### SIXTY YEARS IN MEDICAL HARNESS

By Charles Benenlyn Johnson, M.D. Introduction by Victor Robinson, M.D., Volume I, of the Library of Medical History. Published by Medical Life Press, 12 Mt. Morris Park West, New York City, New York. Price \$3.

The Medical Life Press of New York is publishing a series of volumes, "The Library of Medical History", of which the above title is the first. Dr. Johnson has written a very interesting book, well worthy of a careful reading by the present generation of doctors who are in the wild rush for what the world is pursuing—wealth and position. This is hardly a correct or just statement without some qualifications. In medical centers and in institutions of medical culture the spirit of medical enterprise is as clear as at any time in history and probably more so. If we follow the daily press we are impressed most painfully with the feeling that on account of the desire for possession, the robber and murderer differ only in method, from groups who employ more refined methods for securing the wealth and pleasures of the world.

It may be that in the time Dr. Johnson writes of, there was less greed and more consideration and courtesy, the game was smaller and the temptation less, at least it is worth while for the present day doctor to read Dr. Johnson's books and form his own conclusions. We are able to bear witness to the correctness of the doctor's statements and experiences in that we entered the University of Michigan's medical classes the same year Dr. Johnson did and had the advantage of continuing through the next year under a somewhat new order. Prof. Moses Gunn had gone to Chicago as professor of surgery at Rush Medical College and Prof. William Warren Green of Portland, Maine, a brilliant surgeon who secured an international reputation for a successful removal of a goiter, had been appointed to Dr. Gunn's place. There was at this time much speculation as what the future of the medical department would be on account of the homeopathic question.

Dr. Johnson served three years in the Civil War, mostly in the medical department; took up the study of medicine at its close and with a course of lectures at the University of Michigan, a summer course in Chicago and in St. Louis, entered upon the practice of medicine in a small village of central Illinois without graduating in medicine. At that time about one-half of the western country practitioners were non-graduates, and as in the case of Johnson, took an additional course for a medical degree as soon as convenient. The requirement at that time was a two

year apprenticeship with a practicing physician including two courses of medical lectures of sixteen to twenty weeks each.

Dr. Johnson recounts his experiences from a prairie physician to a village and small city physician, his experiences with remedies and methods of practice with a pioneer country population such as came to Illinois and Iowa where the soil was rich and needed but little cultivation to meet the pioneers' modest needs. The returns to the doctor were very small until increasing population pushed the squatter farther west. It is true that here and there a pioneer farmer was a real farmer and laid the foundation of what was to come. The earnest and competent doctor found these enterprising farmers agreeable companions and associates, loyal supporters and helpers in time of need. The doctor who developed as Dr. Johnson did, had the widest and most intelligent view of men and of economic relationship.

The book is not alone for the medicine man but the layman as well. If he is advanced in years he will, if he lives in Illinois or Iowa, recognize early experiences, or if he is younger what he has heard his father or grandfather say. The author brings into his book everything that comes to a country doctor, roads, horses, means of travel, collections, etc. There are certain experiences common to a settler and to the doctor that the doctor only fairly appraises under the stress of the moment.

#### THE MEDICAL CLINICS OF NORTH AMERICA

Volume XI, Number 5, March, 1926, Chicago Number. Octavo of 206 Pages with 34 Illustrations; Price Per Clinic Year, Paper \$12, Cloth \$16 Net. W. B. Saunders Co.

The first clinic is by Dr. Charles Louis Mix at Mercy Hospital. The subject of the first presentation is Angina Pectoris Secondary to Abdominal Adhesions; the second clinic is a case of Exophthalmic Goiter of Peculiar Type.

Dr. Walter W. Hamburger enters into a rather extended discussion on Disease of the Coronary Vessels; Angina Pectoris and Acute Indigestion, and Dr. Richard J. Tivnen on Middle Ear and Mastoid Infections.

Dr. Arthur R. Elliott presents an interesting case of Tuberculosis Lobar Pneumonia.

Dr. Walter S. Priest considers some cases of Hyperthyroidism Simulating Primary Heart Disease. These constitute a group of interesting cases as illustrating the characteristics of the hyperthyroid heart.

Dr. James G. Carr presents an interesting discussion of Digitalis Delirium. This is an interesting subject because digitalis delirium has been noted by only a few observers.

We have space for a consideration of only a few of the interesting clinics presented in this number. Those that we have noted will be a fair index of the contents of the book.



### NASAL ACCESSORY SINUSES

Pathology and Treatment of the Inflammatory Diseases of the Nasal Accessory Sinuses by Professor Dr. M. Hajek, Chief of the Laryngo-Rhino-Otological Clinic, University of Vienna. Fifth Edition, Completely Revised and Enlarged, Two Volumes. C. V. Mosby Company, 1926.

This translation of Hajek's memorable work is complete and very worthwhile. In the first volume he discusses in a clear and concise manner the variations in the normal anatomy of the sinuses as encountered in different individuals. Next he presents the mechanism of sinus development, stressing their developmental predisposition to inflammatory diseases. In the following section is a discussion of the pathological anatomy. The remaining portion of this volume is devoted to the symptomatology and diagnosis of sinus inflammations both of the usual and unusual types.

In the second volume the author discusses the inflammatory conditions affecting the various sinuses individually, stressing in detail the etiology, pathology, symptoms, diagnosis and treatment in each condition. His section on treatment is of especial value since he reviews the various therapeutic procedures in vogue with a critical analysis of the results obtained by each procedure. The subject of *ozena* receives especial consideration particularly regarding its causation. The following chapters are devoted to a discussion of the complications arising from inflammatory conditions of the sinuses.

Both volumes contain many well chosen and accurately executed illustrations exemplifying the text. To the physician interested in the subject of sinus diseases this work will prove of greatest value.

R. R. S.

### MODERN CLINICAL SYPHILOLOGY

By John H. Stokes, M.D., Professor of Dermatology and Syphilology in the School of Medicine, University of Pennsylvania; Professor in the Graduate School of Medicine, University of Pennsylvania. Octavo of 1444 Pages with 885 Illustrations and Text Figures and More Than 200 Detailed Case Histories. Philadelphia and London: W. B. Saunders Company, 1926. Cloth \$12 Net.

This volume is unquestionably one of the finest presentations of the subject of syphilis which has appeared in the English language. The author has covered, in this one volume, every phase of this important subject in a masterful and concise manner. The material submitted, is, for the most part, entirely new and based upon the secure foundation of wide clinical experience. The style of presentation is unique and forceful. His detail in technique will remove doubt and conjecture from the mind of the inexperienced and offer a comparative standard for the most skilled.

The volume is essentially a clinical presentation. Dr. Stokes has advisedly omitted from the text

lengthy discussions of theory or topics subject to debate. By the aid of numerous excellent drawings and photographs each step in technique is demonstrated and typical lesions of the disease are shown. Resume of case histories are used freely for exemplification of fundamental thoughts.

To the student this volume is a complete text; to the specialist a practical reference atlas; and to every physician an invaluable guide to the recognition and modern treatment of this most protean disease. To the physician who diagnoses or treats syphilis the book is indispensable—and is there a physician who does not see syphilis in some of its manifestations?

R. R. S.

### DISEASES OF THE SKIN

Richard L. Sutton, M.D., L.L.D., F.R.S., (Edin.); Professor of Diseases of the Skin, University of Kansas School of Medicine; Assistant Surgeon United States Navy, Retired; Member of the American Dermatological Society, Etc.; with 1147 Illustrations and 11 Colored Plates; Sixth Edition, Revised and Enlarged. C. V. Mosby Co., St. Louis; 1926; Price \$12.

This book of 1303 pages treats in elaborate manner the many diseases of the skin, which has always been a subject of great trial to the medical practitioner. One of the special features of this great volume on Diseases of the Skin, is the many illustrations which will be of great help to the practitioner who finds himself often at a loss to know what the nature of the disease is. A descriptive text alone would render but little help but the study of the text and an examination of the illustrations will enable the practitioner to reach some kind of a conclusion as to the nature of the case before him.

### THE ROCKEFELLER FOUNDATION ANNUAL REPORT, 1924

The 1924 report covers 420 pages and includes much interesting material. The first is the president's review of the work of the Foundation during the year 1924 and sets forth many facts to show the contributions which the Foundation has made in the matter of investigation and medical education, both in this country and in Europe, chiefly in the direction of health and sanitation. We are informed that occasional outbreaks of yellow fever occur, for instance in Salvador, seventy-five cases with twenty-two deaths occurred in the summer of 1924. Especial attention has been given to better health in rural districts. Referring to the finances for 1924, the report shows that the income accruing from investments is a little more than \$8,000,000. The secretary's report gives a summary of the expenditures for the year 1924. On December 31, 1924, the funds and the property were \$165,291,624. The remainder of the report is made up from the International Health Board. Considerable space is given to the condition of the Pekin Union Medical College and the China Medical Board.

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, FEBRUARY, 1927

No. 2

## A CONSIDERATION OF PRINCIPLES IN SURGERY OF THE PROSTATE\*

VERNE C. HUNT, M.D.

Division of Surgery, Mayo Clinic, Rochester, Minnesota

There are members of the medical profession who still regard prostatectomy a hazardous operation which, in event of the patient's recovery, is followed by more or less questionable results so far as urinary function and symptomatic relief are concerned. There has, unfortunately, been sufficient evidence in the past to justify such pessimism, for as Deaver and others have shown, the average mortality rate following prostatectomy as performed in the average hospital by the average surgeon or by the occasional operator ranges from 20 to 30 per cent. It likewise is true that the functional results and the amount of symptomatic relief obtained under these average circumstances have not contributed to the popularity of the operation. However, in view of the recent advances in this field of surgery whereby the mortality has become comparable with that in the field of general surgery, and the fact that improvement in functional results is unsurpassed in other fields, the operation should be reconsidered from a more favorable standpoint.

The scientific investigation of disease, revealing as it does the cause and effect, and the application of the principles of preventive medicine, have increased the average longevity of civilized man, not materially by prolongation of the life of the aged, but by prolongation of the life of the youth.

Relatively few benign lesions, lethal in their effect, occurring in the sixth, seventh and eighth decades, except prostatic enlargement, are amenable to surgical relief. By the application of the modern methods of management in cases of prostatic obstruction, operation increases the longevity of the aged at minimal risk. That many patients have lived ten, fifteen, twenty and twenty-five years following prostatectomy performed

on account of prostatic obstruction and secondary disturbances of the urinary tract attests to the superiority of prostatectomy over palliative and temporizing methods (including a catheter life which seldom extends beyond five years), and emphasizes the importance of operation early when the indications are clear and before irreparable damage to vital organs has occurred.

### INDICATIONS FOR OPERATION

The consideration of the surgery of the prostate gland becomes a consideration of the surgery of benign prostatic enlargement and obstruction. Cases of malignant degeneration in the Clinic comprised about 15 per cent of the cases of prostatic enlargement. However, when the disease has progressed to the state where clinical diagnosis is possible, the neck and base of the bladder, seminal vesicles and so forth, have usually become involved. There may also be metastasis, chiefly to the pelvic bones and spine, and except in the occasional case the condition is inoperable. In a small percentage of cases of malignant degeneration, the prostate is removed on a pre-operative diagnosis of benignancy, and the true nature of the lesion is not revealed until the difficulties of enucleation are encountered or the routine pathologic examination of the tissue is made. In the latter instance, the malignant focus is usually found to be confined to the interior of the gland and is entirely eradicated with a most optimistic prognosis.

Few men who pass beyond the age of fifty years are free from some prostatic enlargement. However, symptoms occur in only a small percentage of cases, and if present there may not be more than moderate frequency of urination. Certainly in less than 50 per cent of those whose symptoms seem due to the enlargement of the gland are there true indications for surgical procedures. It should be stated, however, that even though symptoms may not appear significant, the appearance of hematuria is of first importance and should lead to thorough urologic examination. While I shall not discuss here the symp-

\*Read at the meeting of the Austin Flint-Cedar Valley Medical Society at Waterloo, Iowa, October 5, 1926.



toms and diagnosis of prostatic enlargement, I wish to emphasize the importance of not placing entire reliance on simple digital examination of the prostate in an effort to explain frequent difficult and painful urination, hematuria, residual urine and so forth. When urinary symptoms occur, especially in the male beyond the age of fifty years, and particularly if there is hematuria or pyuria, or both, a thorough examination of the urinary tract by a competent urologist is necessary. Too often in the past an "innocent" prostate has been removed on account of symptoms produced by a surgical lesion higher in the urinary tract which might readily enough have been revealed by modern diagnostic methods had they been employed. It should be emphasized that deliberate radical urologic operations are seldom so urgent that adequate, competent urologic diagnosis must be dispensed with.

On the assumption that careful urologic examination has demonstrated the symptoms to be the result of prostatic enlargement, what are the indications for surgical procedures? Residual urine persisting as a result of benign prostatic enlargement is of first importance and is a direct indication for prostatectomy. Residual urine in amounts varying from about 30 c.c. to the entire capacity of the bladder has been present in about 70 per cent of our cases in the Clinic. Any symptom of prostatic enlargement in the absence of residual urine may be sufficient to justify prostatectomy, but the urgency of the operation depends on the size of the gland and the amount of disturbance, disability and inconvenience caused by the symptoms. With a small prostate of the inflammatory or prostatitis type, no residual urine, and with symptoms of frequency and irritability of the bladder, little benefit, as a rule, may be expected from prostatectomy so far as symptomatic relief is concerned. It is not to be inferred that the inflammatory or fibrous type of gland should never be operated on for in about 15 per cent of our cases of prostatic obstruction the gland is fibrous. It is important from the standpoint of ultimate functional results to judge the operability of the fibrous type of prostate entirely by the obstruction and retention, and to discriminate surgically against the symptomatic gland that does not cause obstruction. This is in contradistinction to the result of operation in cases in which adenomatous enlargement produces symptoms of frequency, and so forth, in the absence of urinary retention. I have seen adenomatous enlargements of the prostate extend intravesically and almost completely fill the bladder without resulting in urinary retention. There is, however, much frequency, as the result of reduction

in the capacity of the bladder due to the intravesical encroachment of the gland.

#### PRE-OPERATIVE PREPARATION

With the indications clear as to the advisability, necessity, or urgency of prostatectomy, the question arises as to when the operation shall be performed. As the result of experience, the answer to the question is definitely and without exception "not immediately". Inasmuch as approximately 70 per cent of patients with surgical prostatic enlargement have urinary retention, renal insufficiency is present in degrees dependent on the duration and amount of urinary retention, and coincident with renal insufficiency there is a marked reduction in the cardiovascular reserve. To operate immediately on patients in this group tends to precipitate marked renal depression and a high mortality rate from uremia. In cases of surgical prostatic enlargement without urinary retention there is usually little or no renal insufficiency; the urinary tract is aseptic and the patients possess great cardiovascular renal reserve but have little power to combat the general sepsis which is readily precipitated by prostatectomy.

No single factor has contributed to the reduction of the mortality rate as routine preliminary treatment. The most important factor in preliminary treatment is drainage of the bladder. Experience has taught that a period of drainage is essential in all cases; the length of time, however, is dependent on the general condition of the patient and the renal functional tests. The minimal time of pre-operative drainage of the bladder should not be less than ten days, even in cases of the preferred surgical risk. In the presence of marked renal damage a period of several months' drainage of the bladder may be necessary before prostatectomy can be undertaken with any degree of safety. The drainage is usually best accomplished by a permanent indwelling urethral catheter. Cases of impassable urethra, intolerance to urethral catheter, the necessity for prolonging drainage over a period of months, associated lesions of the bladder and so forth, comprise only about 25 per cent of the cases in which suprapubic drainage is required. In other words, urethral catheter drainage of the bladder may be satisfactorily carried out in 75 per cent of the patients preparatory to prostatectomy. Except in cases of impassable urethra, prostatic obstruction should never demand emergent surgical procedures. Utilization of the principles of Von Zwalenberg's method of gradual decompression obviates the untoward effects of emptying an acutely or chronically distended bladder and eliminates many of the former indications for

suprapubic drainage preliminary to prostatectomy, thus readily facilitating the adoption of the one-stage operation in a larger percentage of cases.

While the bladder is being drained body fluids are maintained by the administration of at least 3,000 c.c. of fluid each twenty-four hours, usually by mouth. However, in the presence of marked renal insufficiency intravenous administration of physiologic sodium chlorid solution rapidly increases renal elimination and when necessary may be repeated daily over a long period of time without sacrificing any superficial veins. Rectal administration possesses many disadvantages, chief of which is slow and uncertain absorption with delayed effect on the renal excretory apparatus when early effect is desirable in renal depression secondary to urinary obstruction. When the renal functional tests disclose marked renal depression or when uremia is present or imminent, elimination by the skin, by hot packs, and by the intestinal tract, by the use of saline cathartics may be necessary. The phenol-sulphonephthalein test and determination of blood urea serve as accurate indexes of renal function. However, for proper interpretation of data the tests should be repeated at frequent intervals. When both methods of estimating renal function are available, one acts as a check on the other. However, if but one is available the urea content of the blood affords the more accurate data. The estimation of the salivary urea is a simplified method of estimating urea retention and serves as a guide quite as reliable as the determination of the urea content of the blood. It is essential that drainage of the bladder and pre-operative treatment shall be continued until the renal functional tests have become stabilized within normal limits, and there is a maximal return of the patient's organic reserve. The amount of improvement in a patient's general condition, the cardiovascular system, and the renal excretory apparatus after a variable period of drainage and preparation, often converts a case which is decidedly unacceptable as a surgical risk into one in which subsequent prostatectomy is accompanied by little hazard. In other words, preliminary treatment accomplishes the fortification of the patient against the lethal effects of preexisting or co-existing cardiovascular renal disease and general sepsis which are the most common causes of death following prostatectomy.

#### ANESTHESIA

General anesthesia in prostatic surgery has experienced a long reign of popularity, but only through the apparent absence of its direct in-

fluence on mortality. Deaths from the anesthetic have become somewhat rare. When the patient recovers from the effects of general anesthetic but death occurs some days later the indirect effect of general anesthetic on mortality may be obscure. The depressant effect of ether on the urinary excretory apparatus has long been recognized but considerably discredited for short operations. However, that such temporary depression in the presence of secondary renal disease, so often present with prostatic obstruction, does exert a direct effect on the mortality is beyond question. Furthermore, the incidence of postoperative pulmonary complications after the administration of the ether is higher than with other forms of anesthesia. While pulmonary complications have not been entirely obviated by the avoidance of a general anesthetic, the inhalation and aspiration types have entirely disappeared. Those embolic in origin are, however, still encountered. In recent years the various gases have been employed more than ether as a general anesthetic. While the gases are safer so far as postoperative complication of the respiratory apparatus are concerned, the reserve of the cardiovascular system may be readily depleted by prolonged anesthesia. Lundy and others have recently called attention to the serious effect on the cardiovascular system of continued or repeated cyanosis during anesthesia.

Inasmuch as prostatic obstruction occurs most often in the seventh and eighth decades, with cardiovascular changes not only incident to that age but secondary to urinary obstruction, an anesthetic encroaching on an organ's reserve is undesirable.

Intraspinal anesthesia has been extensively used in this field of surgery with much to recommend it, particularly since it possesses none of the disadvantages of a general anesthetic. However, its depressant effect and often the alarming drop in blood-pressure does not make it a safe anesthetic to be used if patients are in the "prostatic age". The Labat method of regional anesthesia approximately fulfills the requirements of the ideal anesthetic in this field of surgery. It affords complete anesthesia and relaxation, and is devoid of any of the disadvantages of general and intraspinal anesthesia. I have used regional anesthesia during the last five years in 95 per cent of the operations for prostatectomy, and there has been neither direct nor indirect call on the cardiovascular renal reserve.

#### TYPE OF OPERATION

As regards the choice of operation, a critical review of the reliable reports of the mortality



and ultimate functional results would lead one to believe that there is little choice between the suprapubic and perineal operations in the hands of those skilled in the respective methods. A complete prostatectomy may be accomplished by either method under practically all conditions. The choice is a personal one, dependent on the surgeon's training and experience, and the mortality and ultimate functional results in his own cases. It may be stated that the suprapubic operation is less hazardous so far as functional results are concerned, dependent on anatomical surgical trauma. However, the mortality and functional results by either method in skilled hands are about equal. The suprapubic method has been used almost exclusively in the Mayo Clinic during the last fifteen years, but considerable difference of opinion still exists as to whether it should be performed in one or two stages. This again is largely a matter of personal choice, dependent on results. However, I prefer the one-stage operation. By careful selection of patients it may be used in 75 per cent of the cases. It possesses the advantages of exposure, visualized conduct and accurate hemostasis. In about 25 per cent of patients, as the result of marked renal insufficiency and necessity for prolonged drainage, intolerance to the urethral catheter, associated vesicle stones in 12 per cent, surgical diverticula in from 5 to 7 per cent, and extreme senility, the two-stage operation must still be used. Exposure is necessary for accuracy and complete removal of the gland. Within the last ten days I have operated on two patients, each of whom had had a blind two-stage prostatectomy performed recently by good surgeons. In each instance the prostatectomy was incomplete, at least good sized adenomas with obstruction were removed when the second operations were performed. I wish to emphasize the necessity for the use of the sense of sight in performing prostatectomy. In fully 75 per cent of the cases it need not be denied either to the patient or the surgeon.

Hemostasis is a most important factor in the safety of prostatectomy. Many ingenious methods have been devised and recommended for the control of bleeding from the vesicle neck and prostatic capsule. However, after considerable experience with all methods I have found the use of the Pilcher bag the most efficient method. I would emphasize the necessity not only for partial but for complete hemostasis in all cases to insure the greatest safety.

#### POSTOPERATIVE MANAGEMENT

Prostatectomy under regional anesthesia reduces postoperative disturbance and permits the

continuation of pre-operative management. Liquids and nourishment are taken immediately after operation as before. The preliminary treatment fortifies against renal depression and uremia and has eliminated the drastic use of saline cathartics. Most important in the post-operative care is a well-trained special nurse in each case at least for several days.

In closing I would reiterate that pre-operative preparation in all cases for at least ten days successfully combats actual or potential uremia and provides opportunity for improving the cardiovascular-renal reserve. The visible operation insures the patient against surgical accident and the use of regional anesthesia is devoid of depressant effect on the kidneys and obviates the occurrence of postoperative pulmonary complications incident to the inhalation anesthetics.

---

### THE DOCTORS AND THE LAW\*

HARRY DEREUS, Attorney, Pella

The law has tried to assist, almost favor, the physicians and surgeons in the pursuit of their profession and protect society from its own foolishness or ignorance. By the law I mean not only statutes and constitutions but also the common law which has come down to us as an heritage from England.

The courts have from time immemorial tried to apply common sense to the every day problems which have confronted them. Applying this common sense has given rise to certain precedents. Without being super technical, the development of this applied common sense has created what is known as the common law. It tries and largely does adapt itself to the ever changing and ever recurring human problems. Although in this state we have a constitution and many statutes, still the common law as developed cares for most of our human relationships. How has this common law dealt with the medical profession?

When a doctor is called, he goes. He does not go through the formalities of entering into a contract or understanding with his patient about his fee. Because he is a member of the medical profession the law creates or implies a contract between him and his patient, it creates a contract as binding as would be the most elaborate instrument wherein the doctor as party of the first part and the patient as party of the second part, etc., would agree that the doctor was to receive a reasonable fee for his services. For services rendered under this implied contract the patient is

---

\*Read before the Marion County Medical Society, June, 1926.

bound to pay. If I were to go out at the instance of a sick person and render valuable services by effecting a cure, I could collect nothing in a court of law. Whether the services rendered by the doctor are of real or no value, as long as he has rendered services, similar to those rendered by the ordinary practitioner, he can recover for those services. In that identical case, my services might have been of equal value or perhaps greater value to the patient, still I could not collect one cent. The law implies or makes a contract for the services rendered by a doctor and bars anyone else from recovering for similar services. Our supreme court had an occasion to pass on this proposition within the last decade, in *Lyon vs. Leet*, 202 NW 881, (Iowa). The facts in that case were that in March, 1917, before chiropractors were licensed to practice as such in Iowa a chiropractor rendered services to a party in Mills county for a period of seven weeks and charged for those services the sum of \$150, a part of which was paid by note. Suit was brought on this note and recovery was denied because one without a license was not entitled to receive pay for such services.

The legal profession is not so protected. Any banker, notary public, justice of the peace, real estate agent or street corner loafer is permitted to profess a thorough or limited knowledge of the law and may recover for services rendered. The only bar placed in the way of the laity practicing law is that only those who have been admitted to the bar are permitted to appear in a court of record in behalf of a client. Even there a person is permitted to appear in his own behalf, as his own advocate and lawyer. When he does appear in his own behalf it usually gives us another example or illustration of the old maxim: "That he who is his own lawyer has a fool for a client."

Suits concerning malpractice are not unknown, but seldom is a verdict procured. The rule and test of liability in a malpractice action, is whether or not the doctor exercised and used the degree of skill and learning ordinarily possessed and exercised by members of his profession in good standing in the same or similar communities. The burden of proof in such a case is upon the plaintiff or patient, and to establish his case he must procure and offer competent evidence. To get this evidence he must go into the enemy's camp. If you don't believe it is an enemy's camp, try to procure a little evidence of this type during your leisure moments.

These are but two examples of the workings of the common law, applied common sense, and you will agree with me that if the law does not favor, it does assist your profession in its work.

Other instances of special favor being shown to your profession may be found in the statute books. When you are asked to testify in a law action, the law recognizes that your services are more valuable than those of the layman, in allowing your fees. The communications between you and your patient are considered sacred and confidential and you are not required to testify concerning those communications in court. You are excused from jury service. When war is declared, Uncle Sam has a place for you, with at least the rank and pay of a first lieutenant. When the eighteenth amendment became the law of the land, Mr. Volstead in all of his austerity saved you six quarts per annum and a little rubbing fluid for good measure.

There is no royal road to knowledge, neither does one become a member of your honorable profession in the twinkling of an eye. It now requires an investment of several thousand dollars and years of hard, consistent labor and drudgery. When you have finished your internship you are entitled to assistance, if not favor, at the hands of the law and society. In turn the public should be protected from the imposter.

When Dr. Aschenbrenner asked me to talk before you, he suggested that I discuss the law and the quack, telling me, however, that the sky was the limit on anything I wanted to say. A quack is defined as being a humbug, deceiver, charlatan, pretender and imposter. I do not propose to talk on the subject of quackery in general, for there may be some quackery within the licensed profession as well as without. Quackery within the profession may take on various forms, such as unnecessary surgery, commercialism or unfairness to the patient. That is a matter of internal house cleaning and I believe the profession can and will take care of this form of quackery. There is much meat in the parable of the man with a stick of cord wood in his own eye attempting to look after the small speck of dust in his neighbor's eye. In considering the quack, I want to confine myself to a definition which includes only those who have not been recognized and licensed by the law.

What protection does the law give you and the public from the quack? Under our form of government, the "police powers" or those matters which concern and promote order, safety, health, morals and general welfare of society belong inherently to the state governments. To the various states, belong the rights and powers to enact and enforce laws concerning the public health. So we start with the proposition that each state is the guardian of the health of its inhabitants. The various states have enacted laws to protect the



health of its citizens, but you are more especially interested in the laws of Iowa and the way they have dealt with the quack.

Prior to 1886, I have found no statutes in this state bearing directly upon this subject. Apparently any person who could persuade the public that he was qualified to be a physician and surgeon because of a few medical lectures or any other experience was entitled to give medical treatment and receive remuneration for his services. Forty years ago, the Twenty-first General Assembly enacted a law concerning the practice of medicine. Mr. E. R. Cassett of this city was the senator from this district and Mr. E. Shaw, a local attorney, represented this county in the house. How much these gentlemen had to do with the passage of this law, I do not know, but it is likely that Mr. Shaw had some part and interest in it, as his daughter Dr. Luella Shaw-Dean, then a resident of Pella, had just begun or was about to start practicing medicine. The substance of this law was that anyone who desired to practice medicine in Iowa, must apply and secure a license from a board of examiners created by the law. This board could grant a license or certificate to three groups: (1) Those who passed a written examination; (2) those who presented a diploma from a legally authorized medical school, in good standing; (3) those who had practiced medicine in this state for five consecutive years.

This same act defined the practice of medicine as follows: "Any person shall be held as practicing medicine, surgery, or obstetrics, or to be a physician, within the meaning of this chapter, who shall publicly profess to be physician, surgeon or obstetrician, and assume the duties, or who shall make a practice of prescribing or of prescribing and furnishing medicine for the sick, or who shall publicly profess to cure or heal." The penalty for an attempt to practice medicine as defined by the act, without a license, was not less than \$300 and not more than \$500, and costs, with a jail sentence if the fine was not paid. This law was well drawn and if on our statute books today, it would bar quacks from their operations. About ten years later, it was amended and the requirements became more stringent, for after January 1, 1899, all applicants for a certificate were required to take a written examination and were not eligible to take an examination, unless they presented a diploma from a recognized medical school, which offered and required a four years' course of study. The law as it then appeared gave the public the protection it needed and at the same time those "who professed to cure or heal" were made members of a closed

corporation, guild or profession. In other words fakes and quacks were not allowed.

To the student of history the reported law cases furnish an abundance of source material. If you want to know how people thought, acted or believed 30, 50, 100 or 200 years ago, don't go to a history for that will tell the story from the point of view of the writer, he sees history through his own eyes. If you want to get at the real facts go back to the sources and read them, they will create their own environment. To the student of history, I can offer nothing better than the law reports.

Before entering upon a discussion of the interpretation given the Medical Practice Act of 1886, by the courts of this state, permit me to go back into those dark ages and knock the dust off of a case decided way back there, to be more specific in the year 1889, three years after the act was passed. The case to which I refer is *State vs. Moshier*, 78 Iowa 321, it will create its own background and from it you may judge whether or not the medical profession has advanced during the last half century.

One certain Dr. Moshier was residing in Sioux City, Iowa, and on August 3, 1886, a month after the law went into effect, he appeared before the medical examining board, which was then in Sioux City, and asked them for a certificate to practice medicine on the ground that he had been practicing medicine and surgery for more than five years. The board did not seem thoroughly satisfied with his qualifications, so in spite of the fact he had practiced medicine for five years they proceeded to examine him orally. Because of this oral examination, for which the law had made no provision, the board refused to grant him a license. Later he was arrested, tried and convicted for practicing without a license, from this conviction he appealed to the supreme court. In reporting the case the supreme court gave in substance what took place at the oral examination, I quote verbatim from the case:

Dr. S. Moshier was sworn. Said his name was Sidney Mosher. That he was fifty-two years of age. Says he began reading medicine in New York state, when seventeen years old, with Kelly & Robinson, near Batavia. Never attended lectures. Been in the practice about twenty years. Began treatment of medicine before the war. Began in Iowa, when government first required revenue tax. Said he did a general practice. Did but little surgery. Could not say how many cavities in the heart. Cannot give the origin or insertion of any one muscle in the body. Select one? Said he could not answer now. He was not prepared to be examined. Can you give the therapeutic action of any drug? Did not answer.

Can you give the curative action of any single drug and select the drug? Could not say.

While this man was fined and not permitted to practice under the then new law, still here was a man who up to 1886, within fifteen years of the twentieth century, was permitted to call himself an M.D. and practice medicine and perform surgery on anybody, who would come to him.

The statute passed in 1886 remained practically intact until the year 1921. During that time, the statutory definition, read before including the words, "who shall publicly profess to cure or heal" was the guide adopted by our courts in determining who should and who should not be permitted to practice medicine.

The courts have done all they could to protect you and the public from quacks. The matter here being discussed has been passed on by our supreme court no less than a dozen times and to put before you exactly what our supreme court has said and done, I shall give excerpts from six of the cases. The case *State vs. Moshier* decided in 1889 has been referred to, but the real development of the law and the activity of the courts did not commence until the year 1900.

In that year in *State vs. Blair*, 112-466, in discussing the law our supreme court said:

Every citizen has the undoubted right to follow any lawful calling, business, or profession he may select, subject only to such restrictions as the government may impose for the welfare and safety of society. This right is one of the distinguishing features of republican institutions. Many of the occupations of life may be followed by persons, irrespective of fitness, without danger to the public health or in detriment to the general welfare. Others demand special knowledge, training, or experience; and the power of the state to prescribe such restrictions and regulations for these as in its judgment shall protect the people from the consequences of ignorance or incapacity, as well as of deception and fraud, has never been questioned. This is especially true with respect to the practice of medicine. "It has to deal with all those subtle and mysterious influences upon which health and life depend, and requires not only a knowledge of the properties of vegetable and mineral substances, but of the human body, in all its complicated parts, and their relation to each other, as well as their influence upon their mind." Nearly every one, of necessity, consults the physician at some period of life, but few are able to judge his qualifications in point of learning and skill. And because of the importance of the interests committed to his care, involving health and life, chapter 17, title 12, of the code was enacted, requiring knowledge and capacity commensurate therewith, and upon which the community may rely. \* \* \*

The nature and extent of these qualifications were primarily for the determination of the legislature. No objection can be urged because of their severity, if appropriate to the profession, and attainable by reasonable study or application. No one is deprived of the right to practice medicine. All that is exacted is that every one who assumes to do so shall be possessed of the requisite knowledge and skill, and that this be evidenced by a certificate of the board designated by the state to ascertain his fitness. In other words, the real test, applicable to all alike, is that of qualification, and this statute relates to the proof to be furnished in order to establish this as a basis for such certificate.

Again in 1904, *State vs. Heath*, 125-585, was before our supreme court. In that case:

The defendant was accused in the indictment of the crime of practicing medicine without having obtained a certificate entitling him so to do. On the trial it was stipulated that the defendant engaged rooms and advertised as follows:

Cancer specialist and magnetic treatments. Dr. G. H. Heath cures: Abscess, ankylosis, apoplexy, asthma, all eye troubles, brain fever, Bright's Disease, bronchitis, cancer, catarrh (nasal, throat and stomach), chills, colds, constipation, croup, curvature of the spine, deafness, diabetes, diphtheria, dizziness, dropsy, dyspepsia, earache, eczema, epilepsy, erysipelas, exhaustion, fainting, all female troubles, bilious, hay, malaria and typhoid fever, fistula fits, gall-stones, goiter, gout, gravel, headache, heartburn, heart trouble, hernia, hip-joint disease, hoarseness, hysteria, indigestion, influenza, insomnia, jaundice, kidney trouble, la grippe, liver trouble, lockjaw, lumbago, milk leg, nausea, nervous prostration, neuralgia of head or stomach, palpitation, paralysis, peritonitis, piles, pleurisy, pneumonia, rheumatism, (acute, inflammatory, or sciatica), scrofula, stiff neck and joints, stomach trouble, stricture, tumors, varicocele, wens, White swellings, and all chronic diseases successfully treated, Bain Block, corner Story and Tenth streets. New phone, 468. Mrs. Ida M. Anderson and Mrs. Seymour Heath, mental healers and teachers' class. Individual and absent work in mental science, the art of attracting opulence and scientific auto-suggestion. We teach self-healing and how to make weak constitutions strong. Health, magnetism, talent genius for business or any profession developed by our treatment and influence—present or absent. Development along psychic and occult lines a specialty. Bain Block, corner Story and Tenth streets. New phone, 468.

He came to Boone to treat people, and had patients call on him for consultation. His method was by what is known as "magnetic treatment", but he did not in fact treat any person in Boone county as a doctor or physician or osteopath, and did not receive any compensation for treatment to be had in the future. Should he have had patients, he expected compensation for treatment, though he never pre-



tended to use any medicines or drugs, or resort to surgery in any form. \* \* \*

Ladd, J.—Certain penalties are denounced by section 2580 of the code against those who shall practice medicine, surgery, or obstetrics in this state without first having obtained and filed for record the certificate required by the chapter of which that section forms a part. Section 2579 defines who shall be deemed to be practicing medicine as follows: "Any person shall be held as practicing medicine, surgery or obstetrics, or to be a physician, within the meaning of the chapter, who shall publicly profess to be a physician, surgeon or obstetrician, and assume the duties, or who shall make a practice of prescribing or of prescribing and furnishing medicine for the sick, or who shall publicly profess to cure or heal." \* \* \* The manifest intention of the legislature was to divide those who shall be deemed practicing medicine into three classes: (1) all "who shall profess to be a physician, surgeon or obstetrician and assume the duties"; (2) those "who shall make a practice of prescribing or prescribing and furnishing medicine for the sick"; and (3) those "who shall publicly profess to cure or heal". \* \* \* The statute, in order to be effective, has denounced the public profession that he will cure or heal, and this may be proven without exacting evidence that he has actually undertaken to do so. See *State vs. Van Doran*, 109 N. C. 864 (14 S. E. Rep. 32). \* \* \* The power of the state to prescribe such restrictions and regulations in the practice of medicine as, in the judgment of the legislature, shall protect the people from the consequences of ignorance or incapacity, as well as deception and fraud, has been vindicated too often to require citation of authority. But see *State vs. Bair*, 112 Iowa, 466. The statutes do not attempt to discriminate between different schools of medicine or systems for the cure of disease. No method of attempting to heal the sick, however occult, is prohibited. All that the law exacts is that, whatever the system, the practitioner shall be possessed of a certificate from the State Board of Medical Examiners, and shall exercise such reasonable skill and care as are usually possessed by practitioners in good standing of that system in the vicinity where they practice. This excludes no one from the profession, but requires all to attain reasonable proficiency in certain subjects essential to the appreciation of physical conditions to be affected by treatment. The object is not to make any particular code of effecting a cure unlawful, but simply to protect the community from the evils of empiricism. Often the individual alone suffers from the want of proper attention, but in cases of contagious or infectious diseases the entire community may be endangered. In no profession, occupation, or calling are the people more easily or readily imposed on. Section 2576 of the code requires all, regardless of the particular school, to be examined in anatomy, physiology, general chemistry, pathology, surgery, and obstetrics. Surely it is not unreasonable to exact for every one who proposes to undertake to

prevent, cure, or alleviate disease and pain some knowledge of the nature of disease, its origin, its anatomical and physiological features, its causative relations, and of the preparation and action of drugs. At any rate, the state, in order to guard the people against the effects of imposition or ignorance, had the right to exact such knowledge.

Also in the same year our supreme court had an occasion to pass on the same statute in *State vs. Edwards* in 127-332, 337, saying:

Undoubtedly the state has the right to determine what acts shall constitute the practice of the healing art, and it may impose conditions on the exercise of that privilege. *State vs. Mosher*, 78 Iowa, 321; *State vs. Bair*, 112 Iowa, 466. Having defined the terms it uses, courts should accept the definition given, and not be too subtle in the use of refined distinctions. To save its people from quacks and charlatans, the state has plenary power to prohibit or supervise the exercise of the healing art. Statutes similar to the one in question have been enacted in many states, and they have been held to apply to magnetic healers; empirics, obstetricians, midwives, Christian scientists and osteopaths, although there is a decided conflict in the authorities as to these two classes of healing, and itinerant practitioners. \* \* \* Our legislature evidently intended to prohibit the practice of the healing by the use of medicine or any kind of appliance or methods, except upon certain named conditions. The language used is very broad and comprehensive, and covers any and every kind of public profession to cure and heal by the use of any method or device. It confines the practice of medicine to the school or schools regarded as lawful, and does not permit quacks and charlatans to impose upon the public.

Again in 1906 in *State vs. Wilhite*, 132-226:

The indictment charged that the accused did willfully and unlawfully practice medicine, and then and there did publicly profess to cure, and heal the diseases and ailments to which the flesh is heir by means of a certain system, a more particular description of the peculiar and mysterious workings of which are to this grand jury unknown; that said J. C. Wilhite then and there did advertise in the *Ft. Dodge Messenger* that by said system he could cure and heal tuberculosis, and cause the same to be cured, and did advertise in said paper that he is a doctor of neurology and ophthalmology with an office at No. 526½ Central avenue in Ft. Dodge, Iowa, with office hours from 9 to 12 and 1:30 to 4, that said Wilhite did then and there maintain such office, and had placed near the entrance to such place an advertisement sign containing the words: "Dr. Wilhite, neurologist", and by means of such advertisement did solicit persons to meet him at his office to participate in the beneficent results arising from treatment under his said system; that said J. C. Wilhite did then and there undertake to cure and heal diseases and ailments, and that said J. D. Wil-

hite then and there did not have a certificate nor a license from the proper authorities so to practice, nor did he file with county recorder of Webster county, Iowa, any such certificate to practice, and has never applied therefore. The defendant was convicted, and appeals. Affirmed. \* \* \* The evidence established the defendant's guilt. True, he modestly ascribed to nature the healing of all diseases, and merely claimed to discover and remove the causes so as to give nature a chance. To accomplish this he proposed to "stop the leaks in the nervous system and repair the damages done, by methodical rest and dietetics". In a long creed, criticising the treatment of diseases by physicians generally, published in a local paper, he announced himself "the master mechanic of the human body" and added: "The system I practice is taught in but one school in the world, and I am a graduate of that school". And proceeded: "If your organs are not all working properly, call on a master mechanic who will remove the cause. If there is a leak of power, he stops it. If there is pressure on some of the shaftings (or nerves), causing a hot box (or pain), he removes it. If the right fuel has not been used, he orders the right kind, and if the fireman does not know how to fire, he teaches him or her the business." And after quoting a letter said to have been received from a patient, he said: "I do not claim to be a specialist on tuberculosis any more than a great many (in fact almost all) so-called diseases that the medical men and other specialists have not been able to do much for in the way of curing, this system gives a permanent cure. We prefer those who have tried other systems. In that way we prove the system I practice is the best because we get good results. We do not care much what your troubles are, if you want to get well and stay well. Dr. J. C. Wilhite, 526½ Central avenue, Fort Dodge, Iowa." This was a public profession to cure and heal. *State vs. Heath*, supra. Publishing his card as "doctor of neurology and ophthalmology" was also a public profession that he was a physician and, this, with the assumption of duties as such, by advising patients how to care for themselves, so that nature might effect a cure, constituted practicing medicine within the meaning of the statute. See *O'Neil vs. State*, 3 L. R. A. (N. S.) 762, and note.

Appellant complains that if he be adjudged guilty there are others equally so, and many are enumerated who, as counsel seems to think, must come beneath the ban of the law. It will be time enough to determine each case when it reaches us, and should some escape it may afford the accused some consolation to reflect that also at the fall of the tower of Siloam those who escaped were quite as great sinners as the eighteen who were crushed beneath its walls. At any rate, the zeal of the prosecutor was not misdirected in the case at bar. The "doctor" left the farm in 1902 and, after studying at the "Northern Illinois College of Ophthalmology and Otology" two months, was awarded the degree

of "doctor of optics". He then pursued a correspondence course in the same school during the summers of 1902 and 1903, and became entitled to a "master diploma" upon the payment of \$10. Thereafter, he took a "regular course" of three months at the McCormick Neurological College", and became a "Doctor of Neurology" March 1, 1905. Aside from this he has read several articles in the magazines, and a couple of works on the eye. No argument is required to demonstrate that his preparation was utterly inadequate, and that his pretensions savored of the charlatan and impostor. Even though familiar with his alleged "system" he could not have been reasonably proficient in those subjects essential to the appreciation of physical conditions to be affected by treatment. The design of the law is not to render any mode of treatment whatsoever unlawful, but that every one, before he shall undertake to prevent, cure, or alleviate disease and pain as an occupation, shall have some knowledge of the nature of disease, its origin, its anatomical and physiological features, its causative relations, and of the preparation and action of drugs. Experience has shown that this is necessary for the protection of the people against fraud and empiricism. No one is thereby deprived of the opportunity to exploit his "system". All exacted is that, before undertaking to do so by applying it to the functions of life, he shall be possessed of that degree of knowledge and skill required by the statute of all, and evidenced by a certificate from the proper officers of the state.

The judgment is affirmed.

In 1911 in *State vs. Corwin*, 151-420, the court said:

Section 2579 of the code defines who shall be deemed practicing medicine, surgery, or obstetrics or as a physician, and, as pointed out in *State vs. Heath*, 125 Iowa, 585, these are divided into three classes: (1) All "who shall publicly profess to be a physician or surgeon or obstetrician and assume the duties"; (2) those "who shall make a practice of prescribing and furnishing medicine for the sick"; and (3) those "who publicly profess to cure or heal". Section 2580 of the code imposes a penalty on any person who by his conduct brings himself within any of these classes. \* \* \*

Appellant contends that the operation of the statutes should be limited to those professing or undertaking to practice medicine and surgery. The state may determine what acts constitute practice as a physician, and may impose conditions on the exercise of that privilege. *State vs. Mosher*, 78 Iowa, 321; *State vs. Bair*, 112 Iowa, 466. And we have construed the statutes of this state to include those who without medicine or the practice of surgery publicly profess to cure and heal. *State vs. Heath*, 125 Iowa, 585; *State vs. Wilhite*, 132 Iowa, 226; *State vs. Miller*, 126 Iowa, 541, in which the accused was a chiropractor. See *State vs. Johnson* (Kan.), 114 Pac. 390. And in the opinions in these cases and *State vs. Edmonds*, 127 Iowa, 33, we have held the medical



practice statutes constitutional. No useful purpose will be served by reconsideration, notwithstanding the interesting brief presented by counsel for defendant.

The defendant published a series of articles in the newspapers of Brooklyn and Malcolm, denominated "Talks with a chiropractor", in which he directed public attention to the so-called chiropractic system of healing, to the shortcomings of the medical profession, and especially to himself as a practitioner of that system. He undertook to heal a number of persons, and in doing so first required them to strip the back to the skin and lie on a table when he would examine the spinal column with his hands, and by a sudden pressure restore any vertebrae out of place to its normal position, or, as described by the accused: "The patient is suspended between two tables, the chest resting on one, the lower part of the body on the other; and abdomen and spine between them will be in a flexed condition, and I start with my hands over the process in this manner, and with a quick movement in this manner (indicating) as I stand over the patient I seek to move the vertebrae back towards the normal position in order to relieve the pressure on the nerves. Subluxation is likely to have in my opinion to cause an impingement or pressing upon the spinal cord or process and to make impossible the normal transmission of the mental impulses that we ascribe to the brain, thus causing other manifestations than normal ones, causing abnormal conditions or disease. Impingement of the vertebrae interferes with the transmission of mental impulses or impressions. It is a well known fact that there is some energy transmitted from the brain over the nerves and tissues of the body, and these are what are termed in our school as mental impulses. It is supposed that the brain is the center of the nerve force, and these impulses are transmitted over the nerves from the brain to the tissues of the body, and their proper transmission is necessary, in my opinion, to the performance of the normal functions of the brain and tissues."

Manifestly he not only publicly professed to cure and heal, but undertook to do so. If the theory is of such consequence to the world as counsel contend, it would seem that the study such as the state requires of anatomy, physiology, general chemistry, pathology, surgery, and obstetrics would not be objectionable. Surely the requirement that every one who proposes to devote himself to the prevention, cure, or alleviation of disease and pain shall possess some knowledge of the nature of disease, its origin, its anatomical and physiological features, its causative relation, and of the preparation and action of drugs, ought not to be denounced as exacting or unreasonable. Indeed, without such preparation, one might entertain a suspicion that the proposed healer is acting selfishly, and not from an intelligent conviction that his method was preferable to others. All the state insists upon is qualification, and, when possessed of this and armed with a certificate so evi-

dencing and duly recorded, the practitioner may follow any system of healing he may choose.

There was no error, and the judgment is affirmed.

In 1914, the case of *State vs. Frutiger*, 167-550, 556, as appealed from the lower court in Adair county where Hon. J. H. Applegate was presiding judge. The supreme court said:

Counsel say the effect of one instruction was to charge the jury that to sustain a conviction it was sufficient to show that defendant acted, or advertised, or held himself out to be a chiropractor, but this is not a fair interpretation of the court's language. What the court did instruct was that if the defendant, by such methods or in such manner, invited sick or diseased persons to come to him to be relieved from sickness or bodily infirmities, and he did receive such persons into his office and treated or "adjusted" such persons for the purpose of relieving their said ailments, then the jury would be authorized to find that he did publicly profess to cure and heal, within the meaning of the law. That this is a sound proposition of law, according to the terms of the statute, can hardly be questioned. \* \* \* It is quite evident that fundamental complaint is of the statute itself and of its enforcement as being essentially unjust and unduly restrictive upon the profession and practice of the healing art. Even if this objection be justified, the court is without authority to right the wrong. The remedy is with the legislature alone.

No prejudicial error has been shown, and the judgment below is affirmed.

These cases show the attitude of the courts in enforcing a statute enacted for you and society's benefit. They show the broad construction given the words, "who shall publicly profess to cure or heal". Every one who professed to cure or heal was required to be licensed by a board of examiners. It would have been better for humanity and you, if the statute had been left intact and out of the hands of bunglers or maliciously inclined.

Up to 1921, the Medical Practice Act was not changed, although an exception was made in 1902, permitting osteopaths to practice and again in 1909, permitting optometrists to practice, but even under these exceptions the applicants were required to procure licenses from their respective boards of examiners.

During 1921, when the Thirty-ninth General Assembly was in session, I had an occasion to be in Des Moines and while there I happened onto a friend of mine, Mr. Garber, a young attorney and the member of the house from Adair county. Wishing to appear interested in his work as a legislator I asked him if he was sponsoring any legislation. His answer was "Hell no, it keeps me busy trying to kill fool legislation". I did not

realize fully what he meant until I began to read into this subject. You will soon see that he was not successful in killing all of the fool legislation.

That Thirty-ninth General Assembly went wild on certain phases of the Medical Protective Act. It decided that foot doctors needed a license, and an examining board, that osteopaths should be surgeons, and that chiropractors should be recognized. At this time, I have no quarrel with that legislature for recognizing these various phases of the healing art, for men will differ as to the various schools of healing, and in each instance a license was required of the applicant based on some preparation, but this is my indictment against that legislature.

After these various acts had been passed and approved, permitting these heterogeneous groups to follow their various callings under some state supervision, some fool legislator, bright lobbyist or ignoramus, having in mind the history of the law announced by the courts, or fearing that his special group had not been adequately protected in its calling, proceeded to throw a monkey wrench into the machinery. Some snollygoster or a group of them, a few days before the close of the session, caused the words, "who shall publicly profess to cure or heal" to be stricken from the law and the statutory definition of a physician and surgeon. By that act they removed the keystone from the arch, extracted the heart and teeth of the law, opened the flood gates for any grafter who professes to cure or heal and subjected the public to any imposter.

I want you to realize the seriousness of it. Formerly the definition was inclusive, now it was made exclusive. Formerly it included all who profess to cure or heal, now as long as one does not profess to be an M.D., surgeon, osteopathy, podiatrist, optometrist or chiropractor, he is free to go as far as he can in fleecing the public. In my opinion, a magnetic healer or any of that stamp is absolutely free under the present law to do as he sees fit and the public be and is damned. By that one act and the stroke of a pen, in the twinkling of an eye, a magnificent bulwark, which the courts had been strengthening for more than three decades was demolished. Again I say that the flood gates were opened. It is up to you to see to it that the clause "those who publicly profess to cure or heal" is rewritten on our statute books.

In 1924, our code was given a so-called revision, an attempt was made to compile and reconcile the existing statutes, in a few cases the statutes on a subject were rewritten or revamped. Title VIII of this code is entitled "The Practice

of Certain Professions affecting Public Health". Under this title all of the then existing statutes on that subject were revamped, with some red tape and trimmings thrown in for good measure. I shall not attempt to go into the various phases of the present law, for the reason I do not want to be accused of stealing the other fellow's thunder. The substance of the law is the same as it was after the Thirty-ninth General Assembly in 1921. It has added means for investigation of law violations, provided that prosecution shall be directed by the attorney general and carried on by the county attorney. For violations a heavier penalty is added. It provides for injunction against offenders as well as criminal prosecution, but in my estimation, it has no more effect against a well advised quack than a pop gun at forty paces.

To make my point clear by a homely illustration, the Medical Practice Acts might be likened to a good old horse and buggy, which the legislature gave the people in earlier days. It wasn't the speediest even in its day but when the people started in it they got there. The Thirty-ninth General Assembly decided that the old horse and buggy were "passe", so they proceeded to kill the horse, adding a few trimmings to the buggy, then when the 1924 code was made and the old laws revamped, they thought it would be sufficient if they gave the buggy a few more trimmings, in fact when they got through with it it looked like an automobile, but they forgot all about providing for any locomotion.

---

## IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines  
Commissioner, Iowa State Department of Health

---

### WEEKLY HEALTH MESSAGES

In order that the general public may become properly informed in regard to the better methods of preventing disease, it is necessary to carry on a continuous campaign of publicity. This may be done by state or local boards of health by themselves, by the medical societies as such or by a co-operative effort on the part of various organizations.

The State Department of Health is now issuing a Weekly Health Message of about 250 words dealing with some timely subject and accompanied by morbidity statistics of communicable diseases. These are being sent to newspapers and other publications; to health officers of the larger cities, and to the president and secretary of every county medical society.



It is being sent to the officers of county medical societies for two reasons:

1. That the medical profession may be kept informed regarding what is being sent out by its State Health Department.

2. To encourage the proper local organizations to make use of such or similar material as may be proper and appropriate for local publicity purposes.

Since the subject presented may be more appropriate in a given community at some future time, it is suggested that copies of the "Messages" be preserved and filed.

"Messages" issued to date are as follows:

No. 1, December 6—"The Prevention of Scarlet Fever by Immunization."

No. 2, December 13—"Closing of Schools Because of an Outbreak of Communicable Disease."

No. 3, December 20—"Goiter in Iowa."

No. 4, December 27—"Rabies Eradication Through the Protective Inoculation of Dogs."

No. 5, January 3—"January Wave of 'Colds' Can Be Stopped."

No. 6, January 10—"Reducing the Infant Death Rate."

No. 7, January 17—"Measles."

#### SCARLET FEVER IMMUNIZATION

We shall not here refer to the underlying principles of the more recent attempts at producing immunity to scarlet fever.

Those interested, are referred especially to the contributions by Drs. Dick and Dick.<sup>1, 4</sup>

Enough work has been done to demonstrate that the administration of the toxin of the special hemolytic streptococcus in question is of value in preventing scarlet fever. The State Department of Health is therefore recommending its use as a prophylactic in communities where scarlet fever exists. The department is not however, at this time, urging its use on a state-wide basis as it is doing in connection with diphtheria. The reasons for such are as follows:

1. It is not quite as effective in preventing scarlet fever as diphtheria toxin-antitoxin is for that disease. It is not yet proved beyond all doubt, that the hemolytic streptococcus in question represents the sole etiologic agent in the production of scarlet fever and its complications.<sup>2</sup>

2. Greater Reactions: The reactions both local and general are more marked than in active immunization against diphtheria. Larson<sup>3</sup> has modified such somewhat, by mixing the toxin with sodium ricinoleate. This preparation is now available through Eli Lilly & Company. It appears however, that the detoxifying process also makes it less effective. Further work along this line needs to be done.

3. More doses required to produce immunity. Dick and Dick<sup>4</sup> claim that five doses are necessary to secure the desired immunity. Others believe that we can get sufficiently good results with three doses properly graduated. Platou and Collins<sup>5</sup> believe that if the ricinoleated preparation is given in large doses, sufficient immunity to last a year will be produced in a large percentage of children. Some prefer to give two doses of this preparation.

Anti-scarlet fever serum which is of value in treating cases of scarlet fever, may also be used for preventing the disease in susceptible persons definitely exposed. Its efficacy is not as marked as diphtheria antitoxin is for that disease. Some believe that, because of the severity of serum reactions in some cases, it is better not to use the serum for prophylaxis—that it is better to attempt to actively immunize such exposed children by means of toxin, and wait until symptoms of the disease appear before giving the serum. The immunity induced by the serum being of a "passive" type is prompt but transient—that induced by the toxin being of an active type, develops more slowly (a week to a month or more) but is of longer duration.

It is quite apparent that we are not yet sure of the one "best" preparation for use in preventing scarlet fever. The results of the work now under way will be reported in our medical journals from time to time. Within a few years we should be in a better position to recommend some preparation and method of administration, with greater confidence, than we can at present.

Meanwhile, the State Department of Health does not plan to put on a state-wide program of immunizing all children. It does however, recommend the use of one of the toxins of the scarlet fever hemolytic streptococcus for immunizing children who have not had scarlet fever, in communities where the disease exists. It also recommends that the Dick test to determine susceptibility be used for the older children or where there is a question of doubt as to whether or not a child has had the disease.

#### *Quarantine Time not Reduced by Serum Treatment*

We have received a number of inquiries as to whether the minimum quarantine period of twenty-eight days for scarlet fever may be reduced when anti-scarlet fever serum is administered in treatment. Although favorably modifying the course of the disease, we do not yet know whether or not the use of the serum aids in materially hastening the disappearance of the specific germs from the nose and throat. Until

good evidence indicates that the minimal period may be reduced with safety, the department will of course, not change it.

#### REFERENCES

1. Dick, G. F., and Dick, Gladys—"The Etiology of Scarlet Fever". *Jour. A. M. A.*, January 26, 1924, page 301.
2. Porter, Langley—"Scarlet Fever and Measles: A Review of Recent Italian Literature". *Archives of Pediatrics*, March, 1926, page 197.
3. Larson, W. P., Huenekens, E. J., and Colby, Woodward—"Immunization Against Scarlet Fever with Toxin Deoxygenated with Sodium Ricinoleate". *Jour. A. M. A.*, April 3, 1926, page 1000.
4. Dick, G. F. and Dick, Gladys—"Results with the Skin Test for Susceptibility to Scarlet Fever—Preventive Immunization with Scarlet Fever Toxin". *Jour. A. M. A.*, May 16, 1925, page 1477. Confirmed by personal communication, dated December 17, 1926.
5. Platou and Collins—"Scarlet Fever—A Clinical Study in Its Prevention and Serum Treatment". *Archives of Pediatrics*, November, 1926, page 707.

### OUR STATE'S HEALTH\*

JAMES WALLACE, M.A., M.D., C.P.H.

Iowa State Department of Health

In order to gain an adequate conception of the health of the state of Iowa, it is necessary to use a measuring stick or some kind of touchstone. We cannot very well ask the state to open its mouth and let us look at its tongue, and any way we now know that the tongue, though once much relied upon, is rather a poor indicator of the health of the individual. Can we then put our finger on the state's pulse or determine its blood-pressure or its metabolic rate, examine its blood or put a stethoscope to its chest? Not very readily, nor can we subject it to any x-ray examination, but there are some fairly reliable tests to which we can subject the "body" politic.

In the first place we have some tests whereby we can compare the present status of health with what has obtained in the past, and secondly we can compare this state with other states or with what we may regard as a normal, if not an ideal, standard. We have to know ourselves as the Greek proverb expressed it, but we have to know more than ourselves if we are to know ourselves thoroughly. As Matthew Arnold put it in speaking of literature, the man who knows only one book and no other, can never fully know that one book. What standards then shall we use for Iowa? A writer who occasionally amuses himself by writing on medical subjects, says that ordinary standards are often inadequate as measures of health. He says for example that we should judge of a person's age, not by the number of years that have passed over his head, but by the number of colds that have passed through his head.

(1) One method of measuring community health is by sickness surveys, a very good yardstick, but impossible on a large scale and confined very largely to voluntary agencies that have plenty of liberty in determining how money donated for health work may be spent, or to aspirants for college degrees that can be obtained by making surveys of this nature. We have no knowledge of any of these being made in Iowa during the present year, except in one or two circumscribed areas, and any way if made, they would be fragmentary and partial so far as the state is concerned.

(2) Occasionally we can get a general idea of the incidence of certain of the more acute diseases by a survey of hospital records, but there are still so many of these cases, as well as of the less serious ones, treated at home that no adequate conception of health or illness can be obtained except for a very limited area.

(3) The next yardstick within our reach is that of morbidity reports, the reports of cases of disease. In Iowa as in many other states, the reporting of cases of disease, with the exception of a few diseases, has been notoriously incomplete. That we have started on a new era of improvement is evidenced by a comparison of the number of cases reported in the first nine months of 1926, as compared with a corresponding period in previous years. Formerly, it was a common occurrence to find that for some diseases, a greater number of deaths than of cases were reported for the disease. For example, in 1924 for the first nine months there was not one case of tuberculosis reported, and only five for the whole year. In 1925 there were seventeen cases reported in the first three quarters of the year, whereas for the year 1926—January to September—there are 458 cases reported. The improvement in reporting of some other diseases is equally as striking, but all this indicates that up to the present time, the morbidity reports in Iowa would be a very unreliable index by which to judge the health of the state. But thanks to the cooperation of the health officers and physicians, if a proportionate improvement continues, by the year 1927 our morbidity figures will be fairly accurate indices of the state's freedom from or infection by disease. We have always to bear in mind that it is only the notifiable diseases that are reported, so that the great numbers that die from heart disease, cancer and other diseases are never reported as cases.

(4) The yardstick we have as yet to wholly rely upon for Iowa is the mortality reports, as the Census Bureau check on Iowa figures showed

\*Address given at the Regional Health Conference, Carroll, Iowa, October 30, 1926.



the death reports to be 92 per cent or over correct. We can make a fairly accurate estimate of the number of cases of any disease if we know the exact number of deaths, as while diseases vary in their virulence from year to year, there is a fairly definite and constant relationship between the number of deaths and the number of cases. We can be pretty certain that of typhoid fever cases, one in every ten to fifteen is likely to die; for diphtheria and tuberculosis, the ratio is about the same; for scarlet fever, one in every fifty; whooping cough, one in twenty-five; measles, one in one hundred; pneumonia, one in five, and for meningococcus meningitis, one in three. Smallpox varies so much in its virulence that it is difficult to name a ratio, but it varies from one in five to one in five hundred.

The general death rate of the state for the first nine months of 1926 is at the rate of 10.2 per 1,000 population compared with 9.5 and 10. for the years of 1924 and 1925 respectively. As we are not likely to reduce the rate for the present three months, the general death rates are likely to be slightly higher for 1926 than for 1925 or 1924. The increase is accounted for by the increase in the diseases of middle life and old age. Compared with other states, Iowa's rates are not excessive, but each state should be judged by its own possibilities.

The great majority of the population in Iowa are engaged in what is regarded as a non-hazardous and a healthy occupation, tilling the soil and the business of trade. Iowa enjoys high standards of and a wide diffusion of education which should give a background for, if not an actual cultivation of habits of health. Iowa too has a high standard of wealth, the per capita wealth being higher than almost any other state in the Union. This means that the people of Iowa are in a position to protect their health and to promote it. Public health is within certain limitations, purchaseable; and as an editorial in the A. M. A. Journal of October 9, 1926, shows in the case of Knoxville, Tennessee, it can be purchased and it pays to do so. Iowa's climate which is not subject to great variations and its other natural conditions are far from being unfavorable to the health of its citizens. The state has an ample food supply, that is varied enough to contain all necessary vitamins, in fact to judge by the current "surplus" wail, one would suppose that the main ailment of the state is a form of indigestion due to a too liberal supply of a certain kind of food. Let us hope that the querulous laments reported in the papers do not indicate the general outlook of the people of Iowa, for one of the important factors in pre-

serving and promoting health is a cheerful, hopeful, fearless outlook upon the future.

Iowa with its many natural and acquired aids for health protection has, as we see it, two or three hindrances that result in preventing this state from surpassing practically all other states in matters of health. Some of these are incident to our natural topographical conditions, conditions that contribute to the richness of the soil, but add an element of hazard to human life. These are the natural water supplies and the drainage of the state. The natural waterways are lined by habitations, the watersheds we possess are thickly populated and the natural fall for drainage purposes is into the source of water supplies, so that we are continually exposed to water pollution. Moreover the lack of ready drainage of the soil means that there is always a menace from flood borne disease. The experience of this last summer is sufficient proof of this. To completely protect our water supplies will no doubt make necessary many large and small engineering projects, while the disposal of human wastes in a rural state like Iowa will probably only be satisfactorily provided for when there is a full time health officer in each county thoroughly familiar with the best types of sanitary privies or disposal systems, who can show the people how easy it is to have a satisfactory system and at how little cost it can be installed. North Carolina has within the last five years made wonderful progress in the installation of such systems, but this would have been impossible without the adoption for their counties of a full time health organization.

This leads me to say a word about the third break in the wall of our health defense in Iowa. This, I consider, is the lack in practically every one of our counties of an ever acting responsible organization that gets into action not merely when there is an outbreak of a disease, but is working continuously to prevent both epidemics and sporadic cases of disease. Such an organization will give attention to all forms of disease. It will not be that tuberculosis alone or heart disease or any other individual or group of diseases will be campaigned against, but all the local and general factors that increase our morbidity and mortality rates undermine our happiness and increase our economic burden will be attacked, and if not completely eradicated, the number of sufferers will be reduced and the happiness and health of all conserved.

There are many other corrections and defects in Iowa's apparently healthy body that call for remedial measures, but an outstanding one is the strengthening of the Central State Department of

Health by adequate financial support, so that like as the heart to the body, it may not only have a healthy tonus in itself, but that it may reach out to all the extremities of the state and carry the aid and nurture that is needed everywhere. The counties and the municipalities can only fully function when coordinated, nurtured and sympathetically led by a healthy well equipped central organization. Iowa was not born with a weak heart, but the inadequate annual support of three cents per capita to the State Department of Health has tended to give an anemic appearance to all our health work. The average state appropriation for the U. S. A. is over ten cents per capita. We surely should not be thought to be plethoric or oversupplied if we obtain the very moderate amount of four and one-half cents per capita, that is being asked for for the next biennium.

It is impossible to exactly forecast the future trends of disease. There is what the Greeks called the incalculable element in human life, the thing they called "tuche" or chance, by which they meant that we could never be certain that we had included all the factors that make up the cause. There is the incalculable element in health advancement as evidenced by the "flu" epidemics, but in general we can make forecasts of the incidence of disease more accurate than the federal forecasts for the weather. So that in a county, if we have the machinery for health protection, we can work to avert or minimize the waves of disease that we are certain will reach our shores. Let us, therefore, provide the machinery.

---

## RIGHT SIDED ABDOMINAL PAIN\*

A. A. SCHULTZ, M.D., Fort Dodge

The object of this paper is to call attention to the importance of the fact that chronic pain referable to the right side of the abdomen, is in very, very many cases, due to abnormalities which are amenable to medical treatment and do not require or demand surgical interference. Pain in the right side of the abdomen is probably the most common symptom with which the clinician is confronted in his routine work and this is only natural because within this area are located those structures, which in adult life are most commonly diseased: viz—Head of the Pancreas, Gall-Bladder, Right Kidney, Ureter, Colon, Cecum, Appendix and Right Ovary.

It is not my purpose here to go into a differential diagnosis of the various diseases of the above organs, but I do hope to show that many unnecessary cholecystectomies, appendectomies, oopharectomies, etc., have been done in the past, and are still being done by surgeons, who apparently consider the symptom chronic right sided abdominal pain with indefinite physical findings sufficient indication for a laparotomy. In the first place it should be remembered that all right sided abdominal pain is not organic and in the second place, all right sided pain is not a result of surgical pathology.

The appendix, on account of its unfortunate intraabdominal location, is first to be slaughtered and I venture the statement that at least 50 per cent of appendectomies done for so-called chronic appendicitis are not indicated, do not result in permanent improvement of the patient and many times result in increased invalidism. Lichty makes the statement that "probably not more than 60 per cent of the diagnoses of chronic appendicitis are justifiable clinically. In Coffey's clinic, routine examination showed that 70 per cent of those who had the appendix removed have not been benefited. He also makes the statement "that more than half of the patients coming with right sided abdominal pain have no definite organic disease." It is becoming more evident every day that so-called chronic appendicitis, particularly those cases wherein there is no history of previous or recurrent attacks of acute appendicitis, is only a small part of more extensive pathology in the iliac fossa. It is true that when many of these appendices are removed they show evidence of chronic inflammation, but coexisting with this the common finding is a large redundant cecum, lying all or in part in the pelvic cavity and generally covered with adhesions. Undue mobility of the proximal ascending colon is also commonly present. You have then in this group of cases a clinical picture which does not result from an inflamed appendix alone, but from cecal stasis and coloptosis. The appendix is involved because its place of abode happens to be in that neighborhood. Therefore, removal of the appendix alone will not effect a cure and if done, must be supplemented by proper medical treatment, which has for its purpose the relief of chronic colitis and cecal stasis.

The typical patient suffering from this so-called chronic appendicitis is usually of the asthenic type, has a sallow color, complains of headaches and vertigo, is always constipated, moderately anaemic and exhibits evidence of absorption from the intestinal tract.

---

\*Presented before the Austin Flint-Cedar Valley Medical Society at Fort Dodge, Iowa, July 15, 1926.



Palpation of the abdomen in the region of the caecum reveals moderate tenderness with considerable gurgling, and pressure in this region often causes nausea. Indican is invariably present in the urine.

The above symptom complex is not chronic appendicitis, any more than endocarditis is pancarditis. If operation is performed and it shouldn't be in most cases, not only the appendix should be removed but all pathology present which hinders normal function of the intestine. Bands of adhesions should be dealt with, Lanes kinks and diverticulæ looked for and angulations of the ileum relieved. These patients should not be led to believe that their stay of ten days in the hospital is the end of their trouble. Faithful and prolonged medical treatment will be necessary to cause resumption of normal intestinal function. I do not wish it understood that I am averse to removing an acute appendix or doing an interval operation on a patient who previously has had definite, well defined attacks of appendicitis. I am as enthusiastic about indicated surgery as anyone, but I am firmly convinced that the habit of removing the appendix indiscriminately for chronic right sided abdominal pain, should be broken.

While making these statements I can see before me, what I might be permitted to call a composite patient, a female who has a very anxious expression, fairly intelligent and perfectly willing to spend the afternoon in telling her story. Her symptoms began many many years ago, they are referable to the abdominal organs, and they consist of abdominal aches and pains of various sorts and in various locations, but especially in the iliac fossa. The pain is of all types and gradations and is described as dragging, raw feeling inside, indescribable sensation in the stomach, belching, flatulence, etc. Constipation is invariably present. She complains of exhaustion, mental torpor, a poisoned feeling, pains all over, the list of symptoms depending somewhat directly on the length of the consultation. The evolution of such a case is somewhat as follows:

The patient's symptoms began in young adult life and since they were referable to the right iliac fossa, she consulted her surgeon, who after eliciting tenderness in the general region of McBurney's point, recommended an appendectomy. In due time the appendectomy was performed, with the result that the patient was relieved of many of her symptoms for a varying period of time, but not for very long. She was soon back in the surgeons office with the same complaint

and some additional symptoms. The surgeon in self defense was forced to take refuge behind the "smoke screen" of adhesions and advised another operation if she did not improve. After submitting to a second operation for adhesions, with the usual result she lost confidence in her first doctor and was advised by her numerous and over sympathetic friends to consult Doctor So and So, which of course she did. Doctor So and So recognized the real trouble without difficulty, and without laboratory or x-ray assistance. On account of her flatulence, eructations and frequent gastric upsets, along with a muddy complexion it seemed necessary to immediately remove her gall-bladder, which of course was done. Her convalescence was rather stormy, but in a reasonable length of time she was out of the hospital, and still complaining.

Naturally this patient gradually began to lose confidence in surgery particularly and the medical profession in general. She dodged the scalpel by taking refuge within the sanctum sanctorum of the chiropractor, who immediately proceeded to release the pressure on her nerves and incidentally relieve her of what coin of the realm still remained in her possession.

The patient finally gets in the hands of someone who takes the pains and time to study her from all angles, not as a complicated piece of machinery but as a handicapped living human being. He finds that she is in a morbid state both physically and mentally. Her mental condition is difficult to analyze and is perhaps described by that vague term *neuraesthesia*. She is discontented, disgruntled and peevish, intensely egotistic, introspective and hypochondriacal. Her symptoms are all well catalogued with great detail and she usually is a profound student of medicine and the action of drugs. She is of course addicted to the operation habit. This abdominal woman craves sympathy and is the bugbear of the busy Doctor.

Physically she is undernourished and sallow. She looks toxic, her abdomen is visceroptotic and the abdominal gridiron presents many scars, permanent souvenirs of the surgeon's scalpel. The right kidney is usually palpable and movable, the stomach low, the colon tender at various points, constipation is obstinate and the bowel movements alternately hard or diarrhoeic and often containing mucous.

In examining this type of patient surgery should never be considered until the intestinal tract is thoroughly studied roentgenologically by means of the barium enema and gastric series. The usual result of x-ray examination is no

pathology in the upper alimentary tract except gastropsis. The twenty-four hour examination of the colon reveals a mobile cecum and ascending colon, markedly ptosed, the cecum perhaps lying in the true pelvis and the hepatic flexure low down. The transverse colon is ptosed and the right colon tender. If this patient is fluoroscoped in the left lateral position the loaded mobile proximal colon will probably sag across the mid line and the cecum may be located in the left iliac fossa.

To understand the pathology in these cases it can only be made clear by briefly studying the anatomy, embryology and physiology. This was admirably presented by Lipschutz in Vol. III of the *International Clinics* and I am taking the liberty to quote him.

"The ascending colon is smaller than the cecum with which it is continuous. It begins at the frenula of the cecum, opposite the ileocecal valve, from whence it passes upward to the under surface of the right lobe of the liver, on the right of the gall-bladder where it is lodged in a hollow depression on the liver; here it bends abruptly to the left, forming the hepatic flexure. It is retained in contact with the posterior wall of the abdomen by the peritoneum which covers its anterior surface and sides, its posterior surface being connected by loose areolar tissue with the quadratus lumborum and transversalis muscles and with the front of the lower and outer part of the kidney. Sometimes peritoneum completely invests it, and forms a distinct but short mesocolon. Fluoroscopic examination and surgical inspection have revealed that the hepatic flexure in many persons has failed to rotate sufficiently far to the right to become fixed by the phrenocolic ligament in its classic situation. Moreley states that in 20 per cent of individuals of all ages there is found some degree of abnormality of the cecum and ascending colon. V. J. Rose demonstrated that more than half of twenty-five undergraduate nurses had an abnormally low right colon. Colonic abnormalities are to be expected because a consideration of the embryology described by Thompson showed the following: In early uterine life the small and large intestine are attached to the abdominal wall by a common mesentery; the coils of the small intestine fall to the right side while the large intestine lies on the left. The colon then becomes rotated on itself, so that the large intestine is carried over the front of the small intestine and the cecum is placed immediately below the liver. At about the sixth month the cecum descends into the right iliac fossa and the large intestine now forms an arch consisting of the ascending transverse and

descending portions of the colon, the transverse portion crossing in front of the duodenum and lying just below the greater curvature of the stomach. The process of rotation may be arrested at any point, with the result that a large variety of malformation of the colon may be produced. If the embryonic mesocolon fails to reach the right border of the liver, or if by some premature agglutinating process, it is hampered in its rotation, then the hepatic flexure and the entire right colon assume an abnormally low position. In cases where there has been complete failure of hepatic flexure fixation, the entire right colon hangs from a continuation of the iliac mesentery, extending upward and fusing with that of the transverse colon, and the weight or downward pull of the entire right colon is exerted from the root of the mesentery, which is attached in close relation to the duodenum, pancreas, bile ducts and solar plexus. Nature attempts at times to correct this situation by forming bands and membranes, resulting from the deposition of some substance capable of being organized into this firm tissue. This attempt at fixation often leads to interference with proper function and production of symptoms of various kinds. The normally placed and fixed right colon is the seat of rather complicated physiological activities on whose harmony depends the last of the digestive processes, the formation and elimination of feces. Over twenty-five years ago Jacobi observed that the intestines possess not only propulsive power which we know as peristalsis, but a reverse movement or antiperistalsis, an impulse occurring at regular intervals, whenever the cecum has a fluid content. These rhythmical reverse movements are interrupted at regular intervals by a downward peristalsis, but it is the action of the ileocecal valve alone which keeps the contents of the cecum from being forced backward into the small intestine every time reverse peristalsis occurs. In the interval between the backward waves, however, the valve relaxes so that some of the intestinal contents is able to pass into the cecum. This action seems to be instrumental in churning up the liquid material, and spreading it over the surface of the cecum and ascending colon, thus favoring absorption of the fluid and the shaping and drying of the intestinal residue, which is being passed on to the transverse and descending colon.

In addition to the above the carbonic acid and other gases generated in the digestive tract through the action of bacterial ferments, powerfully stimulate the muscular activity of the colon. In its normal state the colon, through its entire length, is marked by slight depressions or pockets



into which the mass of intestinal content is pressed by the peristaltic action and the force of the gases present in the intestine, so that fluid is constantly absorbed from it, and its consistency changes as it advances through the colon. A comprehension of these facts makes it plain that the maintenance of good drainage in the colon is essential to proper functioning of the entire digestive tract, and also that deformities and malformation in most greatly interfere with the normal progress of the intestinal contents."

We have then before us our composite patient who has been worked out thoroughly and a plausible explanation of her symptoms decided on. We feel that surgery has been a curse to her, but what are we going to do about her condition? I admit freely that these cases are not easy to handle, and the difficulty increases directly with the age of the symptoms, and the number of exploring expeditions into the interior of the abdomen. The physical problems to be dealt with are as follows:

1. Increase general muscular tone.
2. Correct ptosis.
3. Increase the emptying capacity of the caecum.
4. Produce regular and normal evacuations of the bowels.

The mental side of this patient should receive due attention. These people have an undermined unstable autonomic nervous system, whether this is a result of their trouble or a cause I do not know, but the fact remains. They should certainly be persuaded to concentrate on other problems than their own physical condition and be advised to choose an occupation which provides sufficient interest to make them lose themselves in it. A well defined plan of medical treatment will prove effective if persisted in, and many grateful patients will be the result. In the more severe cases the patient should be kept in the recumbent position for two weeks or more. The Trendelenburg position at an angle of 30 degrees should be made use of several hours daily, in order that the ptotic viscera may be allowed to gravitate toward the epigastrium and remove the symptoms caused by tugging on the solar plexus and sympathetic nervous system. Enemas and high colonic irrigations should be made use of daily, and it is important that the irrigating fluid should reach the proximal colon. The diet is best devoid of meats and albuminous foods and should consist chiefly of carbohydrates, vegetables and fruits. *Bacillus acidophilus* milk may be given and often with good effect. It is important that the patient be fattened in order to help restore the colon to a more normal position. Well directed massage is of

great value, because it is known that manipulation of the cecum often causes a mass movement of the whole lower bowel. Massage should be performed immediately after breakfast and supper, and should consist of a deep, flat fingered rotary movement beginning over the sigmoid and following the colon back to the cecum. The patient should either be on her back or in a modified knee chest position. After the patient is up and about a well fitted binder or corset should be worn, one so constructed that the lower abdominal cavity is reduced, and provides no space for the ptosed colon. Twenty minutes after each meal should be spent in the Trendelenburg position. Also the hanging prone position over the edge of the bed, may be used for five minutes frequently during the day. Strong purgatives are contraindicated, but frequently for a short time mild catharsis will be necessary. Agar, agar and mineral oil are certainly a valuable addition to the other measures. Correct posture must be insisted on and exercises which increase tone and vitality are of value. These consist chiefly of those which increase diaphragmatic action such as deep breathing and setting up exercises. The prognosis is good, provided the patient cooperates, the treatment is persistent, and the medical attendant sympathetic. The cases which respond most slowly are those with extreme ptosis of the cecum.

Surgery has justly fallen in disrepute among a certain percentage of laymen and I believe it is chiefly due to the fact that too many operations are performed without sufficient indication, and with inadequate observation. The beneficial effects of well directed surgery are indisputable and the brilliant achievements of this art should not be allowed to be clouded in the public eye, by the result obtained in the type of case I have endeavored to describe. I cannot refrain from mentioning the nurse who has had a gastroenterostomy done and undone, following this an appendectomy and cholecystectomy and later on a pelvic operation, none of which were indicated. Her pathology is gastroenteroptosis. I recall the numerous so-called *neuraesthenics* who have had their uteri suspended, also the many mucous colitis cases who have been relieved of their appendices. It is hardly necessary to mention the numerous appendectomies which have been done where the pathology was in the kidney or ureter. My stand on this whole subject may seem somewhat radical, but the subject matter of this paper is at least food for deep thought.

The points which I desire to reemphasize are: First—There is a tendency to attribute pain in the right side of the abdomen most often to the

appendix, gall-bladder and not infrequently the other solid organs mentioned above, and utterly disregard the possibility of the various forms of visceroptoses and colitides. Second—Patients with indefinite abdominal complaints deserve the benefit of a thorough x-ray examination. Third—The surgeon is doing himself and the profession in general distinct harm, when he explores abdomens on the least pretext. And lastly well directed medical treatment often gives brilliant results in these so-called neuraesthenics with posed viscera.

## BIBLIOGRAPHY

1. Lichty, A. J.—"Chronic Appendicitis". J. A. M. A., 79-887, Sept. 9, 1922.
2. Coffey, R. C.—"The Relation of Right Sided Abdominal Pain to Right Sided Disease". J. A. M. A., 81-900, Sep. 15, 1923.
3. Lipschutz, Emanuel W.—International Clinics, vol. iii, page 24.
4. Hutchinson, Robert—"The Chronic Abdomen". British Medical Journal, No. 3251, April 21, 1923.
5. British Medical Journal, June, 1920.
6. Archives of Surgery, vol. vi, No. 2.
7. Boston Medical and Surgical Journal, November 8, 1923.
8. Colorado Medicine, vol. xx, No. 7.

## UNUSUAL LOCATION FOR THE APPENDIX—(Case Report)

CHAS. S. HICKMAN, M.D., Centerville

Case No. 7862. Patient is a school boy, age seven. Mother states that for seven days previous to my visit in the afternoon of June 26, 1926, that patient had complained of cramping, soreness in abdomen and had vomited. Mother thinking illness due to some intestinal disturbance had not called a physician.

Physical examination revealed the following: temperature 101, pulse 84. Color and expression —2. Eye, ear, nose and throat normal except for infected tonsils. Heart, lungs, stomach, kidneys, liver and spleen normal. Abdomen distended and tender. Tenderness more marked over right inguinal region and a mass could be felt and outlined by percussion. Diagnosis of appendicitis with abscess was made and patient removed to hospital. I opened the abdomen with the usual right, rectus incision and pus flowed freely from the wound. With the examining finger a mass could be felt rather low in the right inguinal fossa. This mass was dissected loose and brought out of the wound. It was about the size of a small lemon and pus was oozing from two or three openings in it. Further examination revealed that it contained the appendix and that it was on the end of a diverticulum which measured two inches in length and three-quarters of an inch in diameter. The diverticulum and mass

were removed and the stump treated in the same manner as the stump of an appendix. Two soft, rubber drains were inserted and the wound closed. Uneventful recovery and patient went home from the hospital on the ninth day.

## SOME NOTES ABOUT COPY FOR PRINTING

All the copy for the editorial side of the Journal is given to the printer on the 15th of the month. The proof is given as soon as type is set to the editor for correction; then the whole Journal is put in page proof and again submitted to the editor for further correction. This is the general plan employed by journals and magazines. In the cases of original papers, in addition, the galley proof is sent to the author for his correction and approval and here again we are sometimes delayed, because the author for one reason or another holds his proof too long.

## ABBOTT LABORATORIES SALES SCHOOL

The salesmen of the Abbott Laboratories and the Dermatological Research Laboratories from the Middle West and the South met in the home offices of that company, in North Chicago, the week of December 27. Over forty representatives were present at this meeting, including one from the Pacific Coast, two from Texas, three from Canada, one from Atlanta, Georgia, and three from the Eastern sales force.

Four days were spent in intensive study of the Abbott and D. R. L. products. Playlets were staged illustrating sales points and round tables were conducted on subjects of importance to the salesmen and the firm. On Tuesday evening, December 28th, the salesmen were invited to attend the annual Christmas dinner and dance given by the employees of the Abbott Laboratories. Over 500 were in attendance at this function. On the following evening the salesmen were entertained at a banquet given by the Abbott Laboratories in their own cafeteria, recently installed at the North Chicago plant. Addresses were given at this meeting by Dr. Alfred S. Burdick, president of the Abbott Laboratories, who reviewed the progress of the company and introduced Dr. G. W. Raiziss, professor of chemotherapy, University of Pennsylvania, who spoke on the newer arsenical compounds, particularly Bismarsen, a new combination of bismuth and arsenic; Dr. Roger Adams, professor of chemistry, University of Illinois, who told of his investigations in the field of chaulmoogric acids; and Dr. A. G. Young of the University of Michigan, who spoke of the treatment of arthritis deformans with o-iodoxy benzoic acid, amidoxyl. A meeting of the Eastern sales force of the Abbott Laboratories will be held in New York City in January.



# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

## Publication Committee

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

## SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII February, 1927 No. 2

## IOWA STATE CONFERENCE OF COUNTY SECRETARIES AND COUNCILORS

It has been felt that while the medical profession in Iowa is fairly well organized, there are weak points in the organization that could be strengthened, and so the secretaries and councilors were invited to meet in Des Moines for consultation. Through the generosity of the board of trustees, and as a matter of fairness, the traveling expenses were borne by the State Society.

It is recognized as a fundamental fact, that the economic and civic strength of the medical profession, everywhere, is dependent on the fullness of their organization. Labor and capital, big and successful business is organized and the weaker and less influential units of society are poorly organized or not organized at all. The traditions of the medical profession are individualistic. The practice has in the past been a sympathetic relation between the doctor of choice and the patient, but of late that sympathetic relationship has grown less and less. The great combinations of business, and the great transportation corporations have, as a part of their organization, employed doctors or groups of doctors to care for their sick or injured employes and the employe has become reconciled to the plan of the employer selecting the doctor for him without objection or protest; a plan that withdraws from the individualistic doctor an important group of patients. If the doctor protests his protest is not

heeded or noticed by his stronger antagonist. If the terms of his employment are unsatisfactory, or in a measure professionally degrading, he has no recourse for his employer knows that another doctor, or group of doctors, are ready to take his place under the old conditions. The doctor is not organized and the corporation is. It may be said generally, however, that the corporation, for selfish or other reasons, is rather careful what kind of a doctor he hires for his employe.

There are other and less selfish reasons why the medical profession should organize. If the doctors, in small or large groups, get together as a county society, their influence is vastly greater in the community at large and the time comes when the doctor outside finds it difficult to explain his position and finds himself at a disadvantage. It is often less difficult to efficiently organize a small group than a larger one, for the facts are more apparent and easier to understand than in large communities.

The obstacles in the way of organization are largely of a personal character. They are of a kind that should not exist and do not exist in the eyes of the broader world where little minds do not predominate. Not infrequently we hear men say that it is strange why we have such inferior doctors in our community, they are always quarreling, and the best people go to other towns not so important as ours for medical and surgical treatment, and if we examine into the matter we find that they have no regular county medical society meetings. One doctor is saying unkind things of the others until the community comes to believe that all these things are true. We are often reminded of the old days of good feeling and cooperation, but it should be remembered that the names in mind were of the exceptional ones.

From the expressions heard, the officers of the State Society were highly gratified at the attendance and the interest manifested. If there is any deterioration in the quality of the present day doctor it was not apparent on this occasion. As it appeared to the writer, the men were of a high order of intelligence and very much in earnest in the work before them. The details of the Conference will be presented by the secretary, Dr. Tom B. Throckmorton, who as secretary of the State Society has had a meeting of this character in mind for several years.

In these days of organization we have had in mind certain ideas which appeared fundamental in character, among them was the local secretary. We had believed and still believe that the secretary is first in importance. We had adhered to the idea that when found he should have

a long term. This idea received something of a shock when Dr. Throckmorton showed that the best organized county societies made relatively frequent changes in secretaries. This is, of course, subject to various interpretations. We have in mind an important and influential society known as the Central District Society, of which Dr. A. A. Deering of Boone was secretary for more than twenty-five years, and during this time there was never a failure in program or a lessening in interest. In recent years numerous civic societies have been formed, as for instance, Rotarians, Kiwanis and others, in which medical men take a more or less active interest, and in which membership is sought. If these organizations are of importance to the automobile interest why should not medical societies be of even greater interest to doctors? From many years of observation we can see no better way for an enterprising, particularly young doctor, to secure prominence, acquaintance and leadership than becoming an active secretary to his county medical society.

#### COUNTY MEDICAL SOCIETY MEETINGS

We desire to call attention to the section on County Medical Societies in the January number of the Journal. From these reports it will be seen that, at least, an important group of the Iowa County Medical Societies are alive to their privileges and duties. We are frequently reminded that the county society is the unit of organization and that the state that has the best and most active local societies has the best medical organization.

The practice of medicine in the small town districts is of necessity individualistic, that is, the doctors are general practitioners and constitute an exceedingly important group of men, not only as physicians but as citizens who feel a pride in their profession and also in the community in which they live, and receive honors and recognition commensurate with their usefulness. In the spirit of fellowship as physicians and citizens it is a pleasure to meet together at stated intervals for the consideration of common interests. This feeling is not measured alone by numbers but by the spirit of fellowship and service. If no papers are read, gathering around a well prepared dinner the doctors and their wives in social conversation gives an outlook on life which is the foundation of our civilization. We have known of many small medical societies of most helpful men with the best human ideals. Do not, therefore, say that because we are small in numbers it is not worth while to maintain a society.

We note with satisfaction the evidences of society activity as shown in the January Journal. The satisfaction is so great that we could not refrain from writing about it.

---

#### SKETCH OF THE HISTORY OF THE MAYO CLINIC AND THE MAYO FOUNDATION

---

185 Pages, \$3.50

"An intimate and accurate picture of the development of all phases of the work of this great Clinic, from the earliest beginning to the present, not only of great interest from the historical standpoint but of great value in aiding individuals and institutions to perfect their organizations."

We quote the appreciation statement of the publishers. It has been the privilege of the writer to witness the growth of this institution from its beginning. There is no effort to extol the great skill manifested by the founders in developing this, the greatest institution of medical learning and medical education the world has ever known. It is only a fair statement of how the Mayo Clinic and the Mayo Foundation grew from a country doctor's office to its present magnitude. But the spirit of it was there, first in the father whose high ideals descended to the sons and finally expressed itself in the great Clinic.

It is fortunate for the world that this book should appear. The strange mystery which has excited the mind of the professional world, that a great research and clinic school of medicine should spring up in a heretofore obscure western village, is now cleared by a plain statement of facts in a book that reveals the state of mind and intellect, that illustrates the rare gifts to man witnessed once perhaps in a century. It should be stressed that it is not primarily a financial combination but purely professional and medical, and that the money side is incidental. It is not comparable with the Steel Trust or Standard Oil except in the breadth of vision which has revolutionized medicine and surgery. A period of time should be devoted to a careful study of this volume, not in the spirit of successful medical careers but in the spirit of devotion to a great undertaking in the interests of humanity, and the best methods of securing such benefits.

---

#### BEQUEST

---

A gift of \$3,500,000 to be used in Indiana for charitable and educational purposes, was announced by the widow and brothers of the late Edmund B. Bell of Muncie.



### THE INTELLIGENCE OF THE LAY PRESS IN RELATION TO MEDICAL AFFAIRS

A newspaper called the "Register" is published in Grinnell, the seat, we are informed, of a reputable college. Apparently the "Register" is not aware of that fact.

We are informed that "Dr. Abbott is not the first man of rare accomplishments to be persecuted. Harvey, who discovered that the blood circulates through the body was beheaded; Tanner, who discovered the vaccine for smallpox, was exiled; the discoverer of diphtheria was discredited and hundreds of other instances of this kind could be cited". This is a remarkable bit of medical history inasmuch that William Harvey began his lectures on the circulation in 1616 and died of paralysis in June, 1657, at the age of eighty years. We are not informed if the Tanner who was exiled for his discovery of vaccination for smallpox was the Dr. Tanner who gained great newspaper notoriety for his forty days' fast. If it was Edward Jenner that the learned council for the defendant Abbott had in mind, we are glad to inform him that Edward Jenner, was born in Berkley, Gloucestershire, England, May 17, 1749 and died in the same place in 1823. His only exile was a voluntary one in London. His last visit was in 1814. In 1813 he had the honorary degree of M.D. conferred upon him by the Oxford University. Shortly after his death a public subscription by the medical profession was set on foot for a memorial statute of Dr. Jenner to be placed in Gloucester Cathedral.

It is a sad commentary that a newspaper in a college town should publish such stuff even when dictated by an attorney who seems well fitted for such cases.

### HISTORY OF MEDICINE

We are publishing two or three important announcements, not for advertising purposes but to call attention of the profession to the importance of medical history. Such historical knowledge may not aid directly in the treatment of the sick, or add to our technical knowledge in performing an operation, but does add materially to that broad culture which we as physicians, members of a "learned profession", are supposed to possess. There is a growing belief among leaders in the medical profession that students in medicine should have a wider knowledge of its history. If medicine is what we claim it to be, we should know how it came about. We should be more or less familiar with the intellectual struggles through which civilization has passed to

reach the proud position we now occupy. Medicine has done its fair share in the development of mankind and in adding to its material comforts. These thoughts have brought us to believe that we could well afford the space to print these prospectuses in the hope of rendering a service to a liberal profession.

### DECAPSULATION OF THE KIDNEY IN CERTAIN CASES OF NEPHRITIS

Some years ago we read a paper before the American Medical Association on this subject and presented the advantages of this form of treatment in certain cases of nephritis and abstracted a large number of observations published in the literature of several countries. We were induced to perform this service in view of an article published several years before which brought a commendatory private letter from a distinguished London surgeon. In this first paper we presented the results of several cases of nephritis which were benefited by dividing the capsule of the kidney and reflecting it back allowing the swollen organ to escape from the compressing influence of the tight capsule. We were surprised at the extent of literature on this method of treatment, but for several years following very little appeared in the literature on the subject. Recently we observed in the May number of the Indiana State Medical Journal a paper read by Dr. E. Rankin Denny of Miami Beach, Florida, on the "Employment of Decapsulation in Bichloride of Mercury Poison Producing an Inflammation of the Kidney". He found that the relieving of the tension of the capsule restored the function of the tubules, incapacitated by pressure. Dr. Denny presents in detail the improved function of the kidney when thus relieved of tension.

Burlington, Iowa, January 7, 1927.

To the Editor,

The Iowa State Medical Journal:

Through the courtesy of the Warren County (Illinois) Medical Society—a society which my father was largely instrumental in organizing some seventy years ago, I had the privilege of participating in a meeting to consider the cancer question. Dr. Fitzpatrick, the state chairman of the Association for the Control of Cancer, and Dr. Bloodgood, professor of surgery at Johns-Hopkins, were the principal speakers. The essence of their talk was an appeal for a county organization to educate the public in respect to cancer. It developed that there were both enthusiasts and skeptics present; the former, apparently, in the majority,—dependent, perhaps, on

the glamor in the names of the sponsors of the movement.

I could not resist the temptation to voice the objections of the skeptics. I pointed out that the reference to the good that had been done by the campaign against tuberculosis and typhoid (plus those of diphtheria and scarlatina in progress) was far from analogous; and that, while it was doubtless true that life might be prolonged by liberal excision if the cancer was seen early, our confessed inability to offer suggestions for prevention, much less promise of considerable cures, should make us see how a campaign of education might produce effects directly the opposite of those we desired. With the doctors advertising that they know so little the public might flock to those who promise more. It's the traditional two-edged sword.

In so far as I know, no such campaign has been started in Iowa. The campaign for periodic health examinations will give us enough to worry about.

Truly yours,

H. B. Young.

#### CONFERENCE OF SECRETARIES AND PRESIDENTS OF COUNTY SOCIETIES OF WISCONSIN

All officers of the Wisconsin State Society and the presidents and secretaries of the county societies are cordially invited to be the guests of the State Society at a luncheon meeting to be held in the Hotel Loraine, Milwaukee, on Thursday noon, September 16. At this meeting we have as our guest speaker Dr. E. J. Goodwin (better known as "Ed-die") who is not only secretary of the Missouri State Medical Association but is also editor of their State Journal. He is just going to talk with us about some of the things in which we are all interested. Then there is a county society way up North that has the longest name in the state and that society has a program chairman who keeps more members working and liking it than most of us can do. And so we have asked Dr. I. G. Babcock of Cumberland, program chairman of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society, to come down and tell us what he does and how he does it. He says he is going to talk about ten minutes so that we can all join in when he finishes.

The secretaries of county societies should plan now to attend the first secretaries' conference to be held in Milwaukee early in January. One-half the expense involved will be borne by the State Society for this important one-day session. It is suggested that where county society funds will permit, the question might well be submitted to the society of meeting the other half of the secretary's expense in attending this meeting. The entire day will be devoted to practical suggestions beneficial to the county societies of Wisconsin. Dr. Olin West, secretary and general manager of the A. M. A. will be with us.

George Crownhart, Sec'y.

#### UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

##### PHYSIOTHERAPY AIDE PHYSIOTHERAPY ASSISTANT

Applications for these positions must be on file at Washington, D. C., not later than August 7, October 9, or November 27. The dates for assembling of competitors will be stated on the admission cards sent applicants after the close of receipt of applications. Applications received after a closing date be considered for the next date.

The examinations are to fill vacancies in the field service of the Public Health Service and the Veterans' Bureau, and a vacancy in St. Elizabeths Hospital, Washington, D. C.

The entrance salary for physiotherapy aide range from \$1,020 a year with quarters, subsistence, and laundry to \$2,040 a year without allowances and the entrance salaries for physiotherapy assistant range from \$1,320 to \$1,680 a year. Promotion may be made in accordance with the civil service rules as vacancies occur.

The duties of physiotherapy aides consist of administering physiotherapy in its several branches, such as massage, electrotherapy, hydrotherapy, mechanotherapy, thermotherapy; active, passive, resistive, and assistive exercises and remedial gymnastics; keeping daily record of the work and progress of each patient coming under direction and treatment; and making the required reports of the activities of the reconstruction work in physiotherapy.

The duties of physiotherapy assistants consist of administering to special cases the treatments of physiotherapy as shown above, and other work similar to that of physiotherapy aides.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of United States civil service examiners at the post-office or customhouse in any city.

#### SURGEON NOT PROVED NEGLIGENT IN LEAVING SPONGE

(Frank vs. Bonham [Ind.] 151, N. E. R. 22)

The Appellate Court of Indiana, in reversing a judgment for \$9,000 damages which was rendered in favor of plaintiff Bonham, says that the sole charge was that the defendant, in the performance of a deep abdominal operation on the plaintiff, had negligently left a sponge in the abdominal cavity. It has been expressly held, in a case similar to the one under consideration, that the "operation" included not only the opening of the body cavity and the removing of the diseased organs therefrom, but also the use and the removal of the sponges used in such operation, before the closing of the incision. *Akridge vs. Noble*, 114 Ga. 949, 41 S. E. 78. And the



authorities all agree that the duty which the surgeon owes to the plaintiff in performing the operation is that of exercising reasonable care. Counsel sought to eliminate the matter of the removal of the sponges from the work of performing the operation, and would consider it as a separate matter, which, under the authorities, they could not do.

Whether or not the treatment given by a physician or surgeon in a given case is reasonably prudent or is reasonably skillful—in fact, the question as to whether or not the physician or surgeon has, in a given case, exercised reasonable care—is usually a question for experts, a question of science. Where the question is one requiring for its correct solution scientific or expert knowledge, and such was the question in the instant case, it can be answered only by those possessing the requisite skill and knowledge to give their answers probative force or value, and persons not so qualified are not competent witnesses as to such questions. Medical and surgical science must advance gradually the correct application of its principles is very largely empiric; it has its errors and its failings, as have all things into which the “human equation” enters, and it would not do to hold, as a rule of law, that every physician who administers a dose of medicine, and every surgeon who performs an operation, does so at his peril if the result happens to be not good; that a jury of laymen might mulct him in damages if they, as laymen, should think that he had been negligent in the matter complained of, although his conduct has been in harmony with well recognized, standard methods used by physicians generally in such cases.

The defendant requested an instruction telling the jury that, under the issues in the case, no question was raised as to his learning and skill as a surgeon, and that in their consideration of the case they should presume that he had the learning and skill requisite under the law to entitle him to operate on the plaintiff. This instruction should have been given, so that the jury might be fully and correctly informed as to the exact issue which it was called on to try.

The evidence in this case disclosed, without conflict, that, in performing the operation in question, the defendant was assisted by certain graduate nurses, not servants of his, but regular employes of the hospital where the operation was performed; that the sponges used in surgical operations were prepared beforehand, sterilized, packed six in a box, and put away until needed; that they were prepared and kept at the hospital; that when an operation was to be performed the sponges were brought in, the packages opened, the sponges again counted and placed on the “sterile table” at the side of the operating table; that during the operation, as the surgeon called for them, the sterile nurse took them, one at a time, moistened them, and handed them to the surgeon; that when the sponges were removed by the surgeon they were placed in a basin at the foot of the operating table; that before the incision was closed the surgeon asked the assistant nurses

about the sponges; and that the unsterile nurse then counted the sponges in the basin and reported to the sterile nurse the number thereof, who then checked the number so announced against the number of sponges used and announced to the surgeon as to whether or not the count was correct—that is, as to whether or not all sponges used had been accounted for. This was the method used in performing the operation on the plaintiff, and the record showed, by uncontradicted testimony, that the defendant, before he closed the incision which he had made on the body of the plaintiff, asked the nurses if the sponges were all out, and the nurses informed him that they were.

Tested by the authorities, the court must hold that the verdict of the jury in this case was not sustained by any competent evidence, and that the defendant's motion for a new trial should have been sustained. It has been expressly held that a surgeon who performs an operation at a hospital, not owned and controlled by himself and who is assisted in such operation by nurses, not his employes, but employes of such hospital, is not responsible for the mistake or negligence of such nurses in failing to count correctly the sponges used in such operation, whereby a sponge is left and sewed in the body cavity of the patient. *Baker vs. Wentworth*, 155 Mass. 338, 25 N. E. 589.—*The Journal of the A. M. A.*

This opinion is based on a sound conception of the duties and obligations of an operating surgeon who may not safely undertake a necessary and life saving operation if it is held that the leaving a sponge in the patient's body is *prima facie* evidence of negligence. If it is shown that the operation was carelessly and negligently performed then the surgeon should be held negligent.—Editor.

---

#### COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF WELFARE

---

The Pennsylvania Department of Welfare has just issued Bulletin No. 25, “State Aided Hospitals in Pennsylvania”, a survey of hospital finances, resources, extent of service and the nursing situation made by Emil Frankel, statistician.

It is believed that never before have comparable figures for so large a group of hospitals been brought together, and that this bulletin will give the hospital executive and all those interested in hospital management in Pennsylvania and elsewhere accurate data on hospital costs and service.

The total receipts reported by 149 state-aided hospitals during the fiscal year 1924 were \$15,572,393. The patients' contributions were \$10,086,465; local aid (donations, proceeds of fairs, corporation subsidies, city, county and poor district appropriations, etc.) amounted to \$1,348,168; the receipts from endowment earnings, rents and income from funds were \$825,618; the state's contribution was \$2,171,623; and \$1,140,517 from miscellaneous sources.

For every day of treatment the patients contributed \$2.73; local aid 36 cents; endowment earnings 22 cents. The state's contribution was 59 cents.

The total cost of maintenance of 149 state-aided hospitals reached \$15,327,181 during the fiscal year 1924. Distributing the total among the eight major hospital departments, they showed that \$6,132,982 went for household expenditures; \$4,338,842 was the cost of professional care of patients; the operation of plant cost \$1,841,004; maintenance (repair and upkeep) required \$1,229,354; the administration expenses amounted to \$1,124,499; fixed charges totalled \$411,357; out-patients cost \$155,929 and social service \$93,211.

The daily per capita cost amounted to \$4.14. Of this per capita cost, household expenditures consumed \$1.66; professional care of patients \$1.17; operation of plant 50 cents; maintenance (repair and upkeep) 33 cents; the administration 30 cents; fixed charges 11 cents; out-patients 4 cents; and social service 3 cents.

This study of the 149 state-aided hospitals indicates that with 15,822 beds for patients available they cared for 285,402 patients and rendered 3,701,433 days of treatment. Of these days 1,229,655 were accepted as free days by the Department of Welfare or 33.2 per cent. Pennsylvania with a population of 8.2 per cent of the total United States population counted 13.2 per cent part pay and 19.5 per cent free hospital days rendered by all hospitals in the United States.

The average use of hospital beds is 63.5 per cent; the average use per bed is eighteen patients per year. The average duration of treatment per patient is thirteen days.

This study shows that more than one hundred million dollars are invested in hospital property in Pennsylvania. Sixty-nine of the 149 state-aided hospitals report total endowments of \$13,778,049 or at the rate of \$1,559 per bed for patient. Fifteen hospitals out of the 149 report 56 per cent of the total endowments.

"Pennsylvania's great hospital charity has to an unusual degree provided for the extension of hospital service into the small town and rural community", declares Dr. Ellen C. Potter, secretary of welfare, in her introduction to this bulletin. She maintains, however, that the diversion of so large a sum during the past century into private charitable undertakings has resulted in serious handicaps in the state's own activities in the care of the mentally ill, mental defective, the juvenile delinquent and the criminal.

Dr. Potter believes that the trustees of state-aided institutions, as citizens of the Commonwealth, have laid upon them the serious responsibility of diminishing the need for state assistance to their hospitals by cultivating the sources of local support and by establishing business principles and sound social practice in their administration.

## AMERICAN RAILWAY ASSOCIATION— MEDICAL AND SURGICAL SECTION

### Circular M. & S. 68

The attention of the Committee on Occupational Diseases and Hazards has recently been called to an apparent considerable increase in the number of employes suffering from trichophytosis of the feet and sometimes of the hand.

From the information received by the committee, the spread of this malady is apparently due to a fungus growth on the wooden slats which are generally used on the floor of shower baths provided in connection with rest rooms at shops, round-houses, Y. M. C. A.'s., construction camps, etc. As a preventive it is suggested that consideration be given to frequent sterilization of the wooden slats referred to either by means of boiling water, live steam or some equivalent measure, after which the slats referred to should be thoroughly dried in the sun.

This subject is simply called to the attention of the members as a matter of information.

On behalf of the Committee on Occupational Diseases and Hazards, Dr. J. R. Garner, chairman.

J. C. Caviston, Sec'y.

### Circular M. & S. 69

The Committee on Occupational Diseases and Hazards recently had called to its attention a number of cases of injuries to employes hands due to handling packing compound on or around locomotives. Apparently such injuries have been caused by the comparatively large amount of alkali in some of the compounds generally used.

This subject is called to the attention of chief surgeons as a matter of information and interest, and whether or not any such cases have come to the attention of the various chief surgeons. If not it is suggested that the matter be called to the attention of their respective superintendents of motive power.

Will you please advise if you have information as to any such injuries occurring within the past few months and if so, the number and severity of the cases.

On behalf of the Committee on Occupational Diseases and Hazards, Dr. J. R. Garner, chairman.

J. C. Caviston, Sec'y.

## VILLAGE DOCTORS MORE NUMEROUS BUT WORK HARDER THAN CITY COLLEAGUES

Village communities have only about two-thirds as many physicians in proportion to the number of inhabitants as have medium sized cities, according to figures just made public by the Institute of Social and Religious Research, New York, in a report by Dr. C. Luther Fry, in which are presented the results of an interpretative study of previously unpublished 1920 census data for 177 agricultural vil-



lages selected to be used as nearly representative as possible of the entire United States.

But the villages themselves, as distinguished from the "village communities", have proportionately more physicians than the cities have. The Institute's computations for the different regions show that per 1,000 inhabitants Middle Atlantic villages have 2.9 physicians and the cities 1.6, the Middle West villages 2.8 physicians and the cities 2.2, and the Southern villages 3.6 and the cities 2.1, while the Far West villages have 2.8 physicians and the cities 2. per thousand inhabitants.—Federation Bulletin.

### THE INVENTOR OF DOVER'S POWDER

Among the members of our profession who have had a life of adventure—and there are many of them—few names are more familiar in our mouths than that of Thomas Dover (1660-1742), who, as Dr. J. Venn pointed out in his series of "Academic Sports", took his B.A. at St. Mary's Hall, Oxford, and the M.B. from Caius College, Cambridge, and became a captain in a buccaneering expedition, in which capacity he in 1710 rescued Alexander Selkirk, whom Defoe made immortal as Robinson Crusoe. Eventually Dover began the practice of medicine in London, where he became known as "the quicksilver doctor" on account of his cure for asthma and many other ills—namely, "an ounce of quicksilver daily to be taken at what hour the patient pleases, and a spoonful of the gas of sulphur in a large draught of spring water at 5 o'clock in the afternoon and at bed time".—The Boston Medical Journal.

### ADOPTION OF RESOLUTION BY THE WHITE CROSS

The following resolution was adopted by the White Cross, Seattle, July 14, 1926:

"Whereas, there was introduced in the Senate of the United States on April 19, 1926, a bill (S. 4085) to strengthen the Harrison Act of December 17, 1914, as amended; and

Whereas, it would seem desirable for the Congress of the United States, in connection with the consideration of such proposed amendatory legislation, and before any new legislation is enacted, to review the field of narcotic regulation with a view to adopting legislation which will conform the regulation of such trade to the situation as developed by such an investigation.

Now, Therefore Be It Resolved that the White Cross, Inc., request Honorable Reed Smoot, a member of the Senate and Honorable Stephen G. Porter, a member of the House to obtain a federal investigation by a committee to be appointed for that purpose, of the narcotic situation in this country, with a view to obtaining a better understanding of the narcotics evil, and the adoption of such legislation as such an investigation will suggest."

### EUROPEAN TOUR OF TRAVEL STUDY CLUB OF AMERICAN PHYSICIANS

At the request of Dr. Richard Kovacs, secretary of the Travel Study Club of American Physicians, we have great pleasure in sending you annexed, a summary of the specially prepared European tour which they propose taking next summer.

This past season's trip proved so satisfactory that the Raymond & Whitcomb Company have again been selected to handle the details pertaining to the travel arrangements and pleasure of the party.

The price of the trip will be found on the third page of the itinerary. Needless to say, everything pertaining to the land arrangements of this trip will be first-class throughout.

A nominal deposit of \$50 each person is required when registering for the tour and should be sent to Dr. Richard Kovacs, secretary-treasurer, Travel Study Club of American Physicians of 223 East 68th street, New York City, or to the writer. Cheques should be made in favor of Raymond & Whitcomb Company; this amount being required by the steamship companies when accommodations are reserved.

Please state if you wish minimum price ocean accommodations included in the arrangements or whether you wish to pay a supplementary charge for higher priced location and two in a room basis.

Raymond & Whitcomb Co.,  
A. E. Chiappari, Asst. Mgr.

### Special Itinerary for Travel Study Club of American Physicians

July 15: Embark on the S. S. Arabic between 8 p. m. and midnight. The steamer sails shortly thereafter.

July 16 to July 23: At sea.

July 24: Due to arrive at Antwerp. A drive will be made to the places of interest. Leave in the afternoon by rail for Brussels.

July 25: At Brussels. Clinical program. Drive around the city visiting the points of interest.

July 26: Leave Brussels in the morning by express train to Frankfort.

July 27: At Frankfort. Clinical program. Drive around the city to see the points of interest.

July 28: At Frankfort. Excursion to Homburg and Nauheim, returning to Frankfort for the night.

July 29: Leave Frankfort in the morning by rail. Arrive Leipzig in the afternoon.

July 30: At Leipzig. Clinical program. Drive around the city to see the points of interest.

July 31: Leave Leipzig in the morning by rail to Berlin, arriving at noon.

August 1 to August 3: At Berlin. Clinical program. On one day there will be a drive around the city to see the points of interest.

August 4: Leave Berlin in the morning by rail. Arrive at Carlsbad in the afternoon.

August 5: At Carlsbad—a day of rest.

August 6: Leave Carlsbad after breakfast for Marienbad.

August 7: Leave Marienbad by rail for Vienna.

August 8 to August 11: At Vienna. Clinical program. On one of these days there will be a drive around the city to see the points of interest.

August 12: Leave Vienna in the morning by rail for Budapest.

August 13 to August 14: At Budapest. Clinical program. On one of these days there will be a drive around the city to see the points of interest.

August 15: Leave Budapest by direct train to Salzburg.

August 16: Leave Salzburg for Munich.

August 17: At Munich. Clinical program. Drive around the city to see the points of interest.

August 18: Leave Munich by rail to Romanshorn and steamer across Lake Constance to Lindau, thence by rail to Lucerne.

August 19: Leave Lucerne by rail for Lyons.

August 20: In the morning there will be a drive around the city. Leave Lyons by rail at Noon for Vichy, arriving in the evening.

August 21: At Vichy. The day will be left free for independent action.

August 22: Leave Vichy in the morning by express train for Paris.

August 23 to August 26: At Paris. On one day there will be a drive around the city. On another day there will be a drive to Fontainebleau.

August 27: Leave Paris by steamer train to Cherbourg and sail on the S. S. Pennland of the Red Star Line.

August 28 to September 4: At sea.

September 5: Potential arrival at New York.

### Rates

The price of the complete tour is \$920 which includes eastbound steamship allowance of \$150 and westbound steamship allowance of \$150. Higher priced steamship accommodations may be obtained on payment of the difference.

Passengers may arrange to sail on other steamships than those specified and join the tour at the most convenient point.

### What the Membership Includes

The membership includes ocean pasage at the rates shown; transportation in Europe over all other routes whether by steamship, railway, automobile or carriage; hotel accommodations, with three meals a day comprising Continental breakfast and table d'hote luncheon and dinner according to the custom of the country or the hotel visited both at hotels and while traveling. Government war tax of \$5 is also included in the price.

Also all carriage and automobile drives and side trips in accordance with the itinerary; transfers; guides' fees and sightseeing fees; fees and taxes at hotels for usual services; transportation and transfer of small steamer trunk and one suitcase, or two suitcases per person; and the services of an experienced manager during the entire time in Europe.

The membership does not include wines or mineral waters, laundry charges, baths or stewards'

fees during the voyage upon the ocean steamers, for these are matters of essentially a personal character. Items not on the scheduled menus at the hotels will be considered as extra and charged for accordingly. The cost of passports and visas thereon is not included.

The prices of the tours are based on rooms without private bath because such accommodations are not always available. However, every effort will be made to obtain such rooms for members who order them at or before the time of final payment, the extra charge being paid by the member to the various hotels furnishing such accommodations.

### Registration

A deposit of \$50 is required from each person when registering for the tour, and should be sent to Dr. Richard Kovacs, secretary-treasurer, Travel Study Club of American Physicians, 223 East 68th street, New York City. Check should be made in favor of Raymond & Whitcomb Company, this amount being required by the steamship companies when accommodations are reserved. The payment of the balance should be made four weeks previous to sailing.

Should it become necessary for any member to withdraw after paying deposit, refund will be made in accordance with the custom of the steamship companies, after berths are resold.

### Passports

Passports are absolutely necessary, and early application should be made. Full directions will be given to all members.

## MEDICAL OFFICERS' MEDICAL RESERVE CORPS

In line of national defense, Dr. W. J. Mayo in an address before the Montana State Medical Society stated that in the future no physician or surgeon would be accepted on the staff of the Mayo Clinic who is not a member of the Medical Officers' Reserve, if he is physically fit, and advised them to send their sons to schools having reserve officers training corps or to the citizens' training camps. These young men are the backbone of the nation's future defense, and the cadets of today will be the officers of tomorrow.

## MAYO FOUNDATION LECTURES

Donald D. Van Slyke, Ph.D., New York, editor of the Journal of Biological Chemistry, lectured at the Mayo Clinic, Rochester, November 22, on "Urea Excretion in Nephritis"; Dr. Oscar Gans, professor of dermatology, University of Heidelberg, gave a series of five lectures on "Skin Manifestations in Metabolic Disorders" at the clinic, beginning November 16; Dr. S. Judin, professor docent of the University of Moscow, lectured, November 12, on "Medical Conditions in Russia".—The Journal of the A. M. A.



## SOCIETY PROCEEDINGS

### Carroll County Medical Society

The Carroll County Medical Society met at St. Anthony Hospital, Carroll, December 22, 1926. The old officers were reelected: Dr. W. M. Shirley, president; Dr. W. L. McConkie, secretary and treasurer.

### Cerro Gordo County Medical Society

The Cerro Gordo County Medical Society held its regular monthly meeting December 15, 1926. A general diagnostic clinic was held from 4 to 6 p. m. Dinner was served at Hotel Cerro Gordo, Mason City, at 6:30 p. m., followed by a business meeting. Officers elected were as follows: Dr. C. E. Dakin, Mason City, reelected president; Dr. C. F. Starr, Mason City, reelected vice-president; Dr. E. L. Wurtzer, Clear Lake, reelected secretary-treasurer; Dr. W. E. Long, Mason City, reelected delegate for 1927; Dr. A. B. Phillips, Clear Lake, alternate. Board of censors as follows: Dr. H. M. Hoag, 1927; Dr. F. A. Burke, 1927-1928; Dr. A. H. Chilson, 1927-1928-1929.

Dr. W. E. Long, Mason City, was appointed delegate to the Conference of County Societies at Hotel Fort Des Moines, at Des Moines, held December 17, 1926.

The board of censors were urged to determine reasons why certain doctors in the county are not members of the County Medical Society, and to report at the next regular meeting.

The program for 1927 is in the hands of the program committee. The report will be ready for next meeting.

### Johnson County Medical Society

The Johnson County Medical Society met January 11 at the regular monthly meeting. Forty-one of a possible fifty-four members were in attendance.

Supper at 6 p. m. was followed by a business meeting and scientific program. The officers for the coming year are, president, Dr. Andrew W. Bennett; vice-president, Dr. M. L. Floyd; secretary-treasurer, Dr. Geo. C. Albright; delegate, Dr. W. F. Boiler; alternate, Dr. J. F. Wolfe.

The scientific meeting consisted of a report by the secretary of the Des Moines Conference of County Secretaries. The society very heartily voiced its approval of the step that was taken by the state officers in having this meeting. A paper was presented by Dr. M. L. Floyd on a case of convulsions in an infant thought to be due to a cerebral embolism. President Bennett reported a case of Addison's Disease with autopsy findings.

The meeting adjourned shortly after 8 o'clock. The society was quite enthusiastic over the short, interesting type of meeting.

Geo. C. Albright, Sec'y.

### Plymouth County Medical Society

The Plymouth County Medical Society met at the Sacred Heart Hospital, Le Mars, December 6, 1926, and after supper at Myers Cafe proceeded to the election of officers which resulted as follows: President, Dr. S. G. Vernon, Merrill; vice-president, Dr. J. Brummer, Akron; secretary-treasurer, Dr. Chas. Shepard, Le Mars.

The program was as follows: Infant Feeding, Dr. J. L. Reeves; Toxemia of Pregnancy, Dr. E. C. Kepler.

Dr. W. L. Downing was elected delegate and Dr. M. W. Larson, alternate to the State Medical Society, Council Bluffs.

### The Ringgold County Medical Society

The Ringgold County Medical Society recently held their annual meeting for the election of officers for 1927.

Dr. Max E. Witte, superintendent of the State Hospital for Insane was present and delivered two addresses, one was Random Observations in Heredity, and the other one was The Mental Disorders of Old Age. Both addresses were instructive and entertaining, and were well received. Complimentary resolutions were passed for the doctors presence and addresses.

After the program, the election was held with the following results: President, S. W. De Long, M.D., Tingley; vice-president, E. J. Watson, M.D., Diagonal; secretary-treasurer, Samuel Bailey, M.D., Mount Ayr; censors, E. J. Watson, O. L. Fullerton, C. M. Walker, Kellerton; delegate to State Medical Society, E. J. Watson, M.D.; alternate delegate to State Medical Society, Samuel Bailey, M.D.

Resolutions were adopted recommending monthly meeting of the society.

Samuel Bailey, Sec'y.

### Tama County Medical Society

The Tama County Medical Society met in Traer, December 21. Luncheon was served at Hotel Traer at 12:30, at which the company numbered twenty, including the doctors and their wives.

After luncheon the meeting was called to order in the basement of the public library.

Three interesting papers were read. The first by Mrs. G. T. McDowell of Gladbrook, entitled, How May a Country Doctor's Wife Assist Him in His Work? The second, by Dr. A. J. Bryant of Montour, entitled, Hypertrophic Cirrhosis of the Liver, with report of a case, and the third by Dr. E. K. DunVan of Chelsea, entitled, Hand Infections. (Paper read by the secretary, Dr. Geo. Meyer.)

After the program the ladies retired in a body to call on Mrs. A. A. Crabbe, who has been confined to her home for the past six weeks on account of a serious injury received.

Election of officers resulted in placing for president for 1927 Dr. M. A. Allen of Tama; vice-presi-

dent, Dr. R. H. Whalen of Tama, and for secretary-treasurer, Dr. A. A. Crabbe of Traer.

Resolutions of respect, relative to the death of Dr. H. H. Seivers of Tama, which occurred December 6, 1926, were read and a copy ordered placed on the minutes, one for the medical press, and the third to be sent to the widow.

Albert A. Crabbe, Secretary.

#### **Resolutions of respect to the memory of Dr. H. H. Seivers of Tama, Iowa**

Whereas, the Tama County Medical Society has suffered the loss of one of its oldest members, in the death of Dr. H. H. Seivers of Tama.

And Whereas, for a period of over forty years, he has faithfully given of his service to the sick of the community he has served.

Therefore, be it resolved that resolutions of respect to the memory of this old family doctor, of whom so many have of recent years passed beyond the vale, be recorded in the minutes of the Tama County Medical Society, a copy transmitted to the medical press, a further copy, with expressions of the deepest sympathy of this society, be conveyed to the bereaved widow.

Committee:

A. A. Pace,  
Manning L. Allen.

#### **Wayne County Medical Society**

The Wayne County Medical Society met at Corydon, December 21, 1926. Physicians from Appanoose and Decatur counties were present. The following program was presented: Personal Experiences in Fractures, E. E. Bamford, Centerville; Appendicitis in Children, C. S. Hickman, Centerville; Toxemias of Pregnancy, K. R. Luthy, Corydon.

The following physicians were present: Dr. C. S. Hickman, Centerville; Dr. L. M. Lovett and Dr. Charles Lovett, Linville; Dr. Bowen Leon and Dr. Rogers, Pleasanton; Dr. D. L. Ingraham, Sewal; Dr. G. W. Hinkle, Harvard; Dr. H. T. Smith, Humeston; Dr. B. S. Walker, Dr. Karl R. Luthy, Dr. G. T. Solinbargar and Dr. C. F. Brubaker, Corydon.

#### **Webster County Medical Society**

The election of officers of the Webster County Society for the new year resulted as follows: Dr. A. E. Acher, president; Dr. F. G. Knowles, vice-president; Dr. G. Baldwin, secretary and treasurer; Dr. H. W. Scott, delegate to State Society, Council Bluffs; Dr. A. H. McCraight, alternate delegate. Board of censors: Dr. J. M. Garrett, Dr. J. F. Studebaker, Dr. A. E. Acher.

#### **HOSPITAL NOTES**

The new Mercy Hospital at Oelwein was dedicated December 1, 1926, with appropriate ceremonies.

The Lutheran Hospital Association has taken over a private hospital at Cedar Rapids known as Prospect Place, previously a private hospital.

#### **ANNUAL HEALTH MEETING**

The Iowa Tuberculosis Association, Iowa Heart Association, Iowa Trudeau Society, and Iowa Sanatorium Association, will hold their annual health meeting at the Hotel Fort Des Moines, Des Moines, February 23, 24, 1927.

##### **Program**

Wednesday, February 23

9:00 A. M.—Registration, Mezzanine Floor.

9:30 A. M.—Health Play—Pupils of Valley Junction School.

10:00 A. M.—A Lesson in Geography—Mrs. F. H. Klees, Waukon. Problems of a chairman: Short talks by several chairmen. General discussion. The Silent Salesman (J. T. Duncan of Broadlawns)—introduced by Frances Brophy. About Chew Chew—Edith S. Countryman. The New War on Diphtheria, and how local organizations may help—Dr. James Wallace.

12:30 P. M.—Luncheon: Presiding, Agnes Samuelson, State Superintendent of Public Instruction. The American Legion's Interest in Health Work—Father J. L. Whalen. Teacher Training for Health—Miss Samuelson.

2:00 P. M.—Presiding, Dr. J. W. Kime, Fort Dodge, President Iowa Trudeau Society. Why Heart Disease has Increased—Dr. Henry Albert, State Commissioner of Health. Tuberculosis, Still a Major Menace—Dr. John Dodson, Editor Hygeia, Chicago. The Parallel between Tuberculosis and Heart Disease, and preventive and educational methods common to both, Dr. Fred Smith, University of Iowa.

4:00 P. M.—Auto Ride (A health stunt).

4:00 P. M.—Chest clinic and consultation.

6:30 P. M.—Annual dinner. Presiding, Dr. John H. Peck. My last and worst story—Messrs. Dodson, Sampson, Lauer, Hamilton and Lies (pronounced "Lees"). One-act Play—Des Moines Community Drama Association Music and Social hour, auspices Convention Bureau of Chamber of Commerce.

Thursday, February 24

9:30 A. M.—Presiding, Dr. H. V. Scarborough, Superintendent State Sanatorium, President Iowa Sanatorium Association. Advertising for Health—Dr. E. H. Lauer, Director Extension Division, University of Iowa. Public Health Nursing Problems—Agnes Conway, Davenport. Discussion led by Dr. Dodson. Health Education—Superintendent F. T. Vasey, Mason City, President Iowa State Teachers Association. Fresh Air Camps.

12:30 P. M.—Luncheon: Presiding, Lucy McMichael. Address—Mrs. Max Mayer.

2:00 P. M.—Presiding, Hon. J. B. Butler, chairman Board of Control of State Institutions. The



Work Cure (O. T.)—Margaret Biggerstaff. Hazards of Living—Eugene T. Lies, director western office National Playground and Recreation Association, Chicago. A Study of 1317 Heart Cases—Merrill M. Myers, M.D., President Iowa Heart Association.

3:30 P. M.—Business meeting. Election of officers and board of directors. Report of committees (time and place, etc.). Meeting Board of Directors. Legislative problems. Election executive committee. Meeting executive committee.

#### Notes

Make your hotel reservations direct.

As soon as possible after arrival make reservations for the luncheon and dinner meetings.

"General sessions and dinner are in the banquet room, south end mezzanine floor; luncheons in Oak Room, first floor."

Dr. Fred Smith will speak on heart disease at the meeting of the Polk County Medical Society, Fort Des Moines Hotel, 7:30 Tuesday evening, February 22. Delegates arriving that evening are invited.

When buying your ticket inquire if there are rates offered to Des Moines during that week.

### KANSAS CITY-SOUTHWEST CLINICAL SOCIETY

The 1927 assembly of the Interstate Postgraduate Medical Society of North American and the annual fall conference of the Kansas City-Southwest Clinical Society will be held October 17 to 22, 1927, in the new Ararat Shrine Temple, Eleventh and Central Streets, Kansas City, Missouri.

Arrangements have now been completed for the greatest clinical meeting that has ever come to the Southwest. The new Shrine Temple offers a seating capacity of nearly four thousand with excellent acoustics and splendid platform arrangements.

There will be more than thirty-five diagnostic clinics conducted by the leading physicians of the world, together with thirty-five additional addresses. It will require at least 400 patients to visualize these diagnostic clinics. Behind the screen of the platform, there will be a modern hospital equipment and an ambulance service adequate to the situation.

The Pre-Assembly clinics upon the Friday and Saturday, October 14 and 15, preceding the huge Postgraduate Assembly will be conducted at the allied hospitals of Greater Kansas City, throughout both days. Upon Friday evening there will be an informal smoker and upon Saturday there will be the usual attractive group of alumni dinners.

The sessions of the Postgraduate Assembly will begin at 7 a. m. and continue until 11 p. m. daily, until the Friday night banquet. This is the most intensive constructed program of advanced medical and surgical thought that is offered anywhere in the world. The leading physicians and surgeons of the world are always obtained for the program of clinics and discourses.

Watch for succeeding announcements and notices.

### PERSONAL MENTION

Dr. Samuel A. Elliott, son of the late President Elliott of Harvard, recently visited the Sac and Fox reservation at Tama as one of the members of the Board of Indian Commissioners for the purpose of making an inspection of the results of former recommendations at the reservation. Dr. Elliott expressed satisfaction.

Herbert F. Thurston, A.B., M.D., a graduate of Rush Medical College, until recently assistant surgeon of the staff of St. Luke's Hospital of Chicago and assistant in surgery of Dr. Albert E. Halstead, announces his change of residence to Council Bluffs, where he will be engaged in the practice of general surgery. He will be associated with Dr. Donald Macrae, Jr., of the Council Bluffs Clinic.

Dr. Bruce E. McDowell of Allison has accepted an offer to become a member of the Hampton Clinic.

Dr. A. E. McMahon has resigned from the Hampton Clinic to enter private practice in Wisconsin.

Dr. A. E. McKean of Saskatchewan, Canada, has succeeded to the practice of Dr. F. T. Launder at Garwin. Dr. McKean is a graduate of Northwestern University, Chicago and practiced at Rouleau, Saskatchewan, twenty-three years.

Dr. E. C. Kepler of Le Mars, a graduate from Loyola University, Chicago, 1914, has purchased the practice of Dr. McDowell of Allison.

Dr. Charles T. Grallidge, a graduate of the Iowa State University School of Medicine, moves from Farmersburg to Britt.

Dr. E. C. Nauman, a graduate of the Iowa University School of Medicine, has located at Albert City.

Dr. and Mrs. Eli Grimes are preparing for an extensive trip through South America. They will sail from New York January 16.

Dr. Joseph Rohner of Carroll has returned home from Milan, Italy, where he has been studying voice culture.

Dr. Dean W. Harman of Ames has been appointed a member of the emergency clinic and hospital at Houston, Texas.

Dr. W. L. Bierring of Des Moines addressed the Woodbury County Medical Society, December 1, 1926, on the Diagnosis of Heart Disease.

Dr. L. C. Starry of Sioux City was the principal speaker at the Mercy Hospital banquet at Fort Dodge, December 1, 1926.

Dr. A. L. Brooks of Audubon has retired from practice after a professional service of forty-three years.

### ANNOUNCEMENT OF BOOKS ON MEDICAL HISTORY

In response to numerous suggestions, we have made an experiment which we believe is out of the ordinary line of medical publishing. Of the following two books recently published by us, we have made a special limited edition on hand made paper, with the illustrations on Japan vellum: Dana—

"Peaks of Medical History"; Garrison—"Principles of Anatomic Illustration Before Vesalius".

These books have wide margins, are bound in Butcher's Linen, with Fabriano paper sides and furnished with slide cases. Each copy is numbered, and signed by the author. The edition has been limited to one hundred and ten copies of which one hundred are offered for sale at \$10 per copy.

We have not prepared any special circulars nor any special advertising for this edition. The mere announcement of publication has already sold part of the edition. These books are so admirably adapted for Christmas gifts from one doctor to another that it is certain that the remaining copies will be disposed of by Christmas.

This letter is sent to a list of those who have shown an interest in our publications on Medical History. These special editions will not be supplied through the trade. Orders from physicians and libraries will be filled in the order of their receipt. The books are uncut and immaculate. Therefore it will be readily understood that they cannot be sent on approval. Copies of the ordinary edition will be gladly sent on inspection to those who want to look them over. Descriptive circulars of the regular editions are enclosed.

Dr. Garrison's book is ready for immediate delivery. Dr. Dana's is at the bindery and will be ready in November. The title pages and general make-up were supervised by F. W. Goudy, which speaks for the best in bookmaking. When these books are sold out they are certain to be sought after by collectors.

Paul B. Hoeber, Inc.

We are preparing material for a History of the Physician throughout the ages.

There are, of course, many encyclopaedias and books dealing with the lives of medical men; but the men we want to place on record are those who have done special work that has advanced the art of medicine, together with those all-around family physicians who have sacrificed their lives in warding off disease and advancing healthier and more sanitary conditions.

You will notice, in the prospectus, that in Book V there will be a section covering the lives of distinguished American physicians. You undoubtedly know the details of the lives of some physicians who have rendered conspicuous service, and we would esteem it a great favor if you will have the kindness to cooperate with us by contributing a chapter to Book V.

Such an article from your pen will be graciously accepted, not only as a valuable literary contribution, but as your donation to the worthy cause which we have established. Any notice you see fit to make of this subject in your Journal will be greatly appreciated.

This History of the Physician will be sold to both the medical profession and the well-to-do public, the net profits going to the National Endowment Fund

of the Physicians' Home. Several thousand dollars have already been subscribed in advance of this work and we trust to receive your contribution in the shape of a chapter describing the life work of some distinguished American physicians.

Trusting that you will be good enough to comply with our request and that we may receive an early reply.

The Physicians' Home, Inc.,

Charles Capehart,  
National Campaign Dir.

## A HISTORY OF THE PHYSICIAN

A review of the practice of medicine throughout the ages. Illustrated. By Arthur Selwyn-Brown, B.Sc., M.A., Ph.D., LL.D. Assisted by distinguished medical specialists.

Preface—The practice of medicine is the oldest of the professions. Primitive man, hundreds of thousands of years ago was attended in his sickness by men who were expert in medicine. Recent studies of the cave bones discovered in Europe show that fractures were well set, and that many surgical operations were carried out, by the surgeons of the Stone Age.

Ethical conventions have prevented physicians' labors from becoming fully known and their great services to mankind from being deservedly recognized. No great works about physicians have been written like those of Plutarch, dealing with the lives of distinguished personages in classical times; nothing like Smiles' Lives of the Engineers; nor books corresponding to those of Ruskin on the work of artists and architects; nor biographical studies, like those of Lords Campbell and Birkenhead on the great jurists of England. The author, in this book, in a measure, has endeavored to remedy that deficiency.

The medical arts have been developed throughout a very extended period. For thousands of years the physician groped his way as necessity dictated. It was only during the past century, when the general sciences were developed, that doctors were enabled to abandon a number of obsolete doctrines and give medicine a really scientific status. The medical profession thereby attained public recognition and appreciation. The story of the physicians' struggles throughout the ages to gain the mastery of disease and promote the general welfare of mankind is intensely interesting. This book is designed to trace the history of the physicians' labors from the remotest times to the present, so as to clearly show how the basic principles of the modern medical sciences were established, not in one age or country; but by the expert cooperation of medical men in all parts of the world patiently laboring over long periods of time. An enormous mental effort was required to establish modern medical theories. Present accepted truths were once doubted or unconfirmed assumptions, adopted and then discarded in favor of other hypotheses. The trial and error method was used in the development of the art and practice of medicine as well as in the sciences, and



medical progress was not made uniformly; but in a recurrent manner or cycle. Reactions followed advances and fashions frequently led experimenters far astray.

The Theory of Medicine is the most important branch of science to which the human race must appeal to improve and perfect its methods for coping with the great social and industrial problems arising in the future evolution of civilization. H. G. Wells has shown, in his "Outlines of History", that there are four active forces engaged in shaping the development of civilization. The awakening of free thought was the first of these. The Minoans and Ionian Greeks recognized this. The awakening of the free conscience of mankind by the early Christians was the next. The recognition of the solidarity of mankind in the writings of modern philosophers and economists is the third of these contributors to our civilization; while the fourth is the recognition of the need of self-discipline in every individual in the feeling of social obligations. A study of the history of the activities of the physicians plainly shows how well the medical profession has conformed to these great universal factors, and it also discloses the fact, as the writer has indicated in this book, that the physician, more than any other professional man, has contributed in a very great measure, to two others of the more important civilizing factors that have escaped other historians, those of self-sacrifice and altruism.

The world is always full of prejudices and presuppositions, and the establishment of new truths necessitates a long, uphill fight. The supporters of new doctrines, and the discoveries of unwelcome facts, are always doomed to fierce combats, to opposition, and open hostility. The great pioneer physicians encountered all these obstacles in laying the foundations for modern medicine. Surely no more romantic and fascinating studies can be made by members of the profession today than by studying the innumerable steps by which the principles of medicine they are applying in their daily tasks were developed?

Dr. William Allen Pusey, past president of the American Medical Association, will contribute a chapter on the medical profession, to a book on careers which is being brought together by Edward L. Bernays, well known public relations counsel, and which will be published shortly by George H. Doran Company. Mr. Bernays will contribute the chapter on public relations.

Dr. Pusey will outline the scope and function of, the specific ideals, the essential qualities necessary, the concrete methods of securing education and training, and the honorary or monetary goals in the profession of medicine.

Among those who have contributed chapters to the book are: John Hays Hammond on engineering; Colonel Michael Friedsam on retail merchandising; Charles Cheney on textile manufacture; Harvey Wiley Corbett, ex-president of the Architectural

League on architecture; Mary Roberts Rinehart on writing; Jesse Lasky on motion pictures; Homer Folks on social service; David Belasco on drama; Pitts Sanborn on music; Pierre Cartier on jewelry craft; Joseph P. Day on real estate; George H. Doran on publishing; Stanley Resor, president of J. Walter Thompson Company, on advertising; A. C. Ernst, of Ernst and Ernst, on accounting; P. H. Markham, president of the Illinois Central Railroad, on transportation; Ray Long, vice-president and editor-in-chief of the International Magazine Company, on editing; Nelson Antrim Crawford of the U. S. Department of Agriculture, on agriculture; Butler Wright, assistant secretary of state, on foreign service; Frederick James Gregg on the arts; R. R. Deupree, general sales manager of the Proctor and Gamble Company, on salesmanship; Roy Howard of the Scripps-Howard Newspapers on journalism, and others.

---

### OBITUARY

---

Dr. William S. Bigelow, who died at his home in Boston on October 6th at the age of seventy-six years, was for more than half a century a leading authority on art, a distinguished author, and a life long friend of Senator Henry Cabot Lodge. He was a graduate of Harvard Medical School and lectured in that school from 1879 to 1881 but soon retired from active practice devoting his time to the study of the arts.

He was a student of Buddhism and published a volume on Buddhism and Immortality. He made the finest collection of oriental art in existence, except that of the Japanese government. This he presented to the Boston Museum of Fine Arts in 1911.

Dr. Bigelow was a member of the United States Assay Commission, the Massachusetts Medical Society, and the Boston Society of Medical Sciences. He was Commander of the Imperial Order of the Rising Sun, a Japanese organization; a trustee of the Museum of Fine Arts, a director of the new Boston Music Hall, a Fellow of the American Academy of Arts and Sciences and a member of the Asiatic Society of Japan, the American Oriental Society and similar organizations.—Medical Journal and Record.

Dr. James Coolidge of Charles City died suddenly at the Cedar Valley Hospital, December 23, 1926, at the age of sixty-seven years.

Dr. Coolidge was born at Middleton, Wisconsin. He was a graduate from Rush Medical College, Chicago and had practiced in Charles City for more than thirty years. He had practiced in Kansas before coming to Iowa.

Dr. H. H. Sievers of Tama died while visiting a patient December 6, 1926. Dr. Sievers was born in Holstein, Germany, November 11, 1858. He served in the German Army the usual period at that time and attained the rank of lieutenant. He resigned at

the age of twenty-two and came to America and lived in Scott county two years, when he came to Tama. Dr. Sievers began the study of medicine in Germany and completed his course at Rush Medical College, Chicago. On July 19, 1909, he married Mrs. Fannie Buch of Atchison, Kansas, who survives him. Dr. Sievers was active in Masonic circles.

## BOOK REVIEWS

### FUNDAMENTALS OF DERMATOLOGY

By Alfred Schalek, M.D., Professor of Dermatology and Syphilology, University of Nebraska, College of Medicine; Formerly Assistant Professor of Dermatology, Rush Medical College; Member of the American Dermatological Association; Chief of the Dermatological Service, Nebraska University, Etc. Lea & Febiger, Publishers. Price \$3.

The purpose of this book is to present to the general practitioner and the student of medicine an outline of the diseases of the skin. It has never been an easy matter to interest the medical profession in the study of skin diseases although it is an important branch of medical practice. Many books have been written and the subject presented in great detail. We have felt on looking this book over that the author has found an excellent manner of presenting the fundamental facts in a way to meet the requirements of a diagnosis and treatment at the hands of the general practitioner, preparatory to a consultation of the larger works on diseases of the skin. This book appeals to us as a most desirable work for everyday service.

### THE MODERN TREATMENT OF HEMORRHOIDS

By Joseph Franklin Montague, M.D., F.A.C.S., of the Rectal Clinic, University and Bellevue Hospital Medical College; Lecturer of Rectal Pathology; Fellow American Proctologic Society, New York Academy, Etc. Foreword by Harlow Brooks, M.D., F.A.C.P., Professor of Medicine, University and Bellevue Hospital Medical College, Etc., 116 Illustrations. J. B. Lippincott Company.

We have before us a book that considers hemorrhoids as other than a surgical disease and subject to other than surgical treatment, for that reason presents the subject in a new and interesting light. After offering some general considerations the author presents a definition which forms the basis for his argument. "The term hemorrhoid is used to denote a condition of progressive varicosity, affecting one or more radicles of the hemorrhoidal veins, and tending towards mild interstitial inflammation, fibrosis, and spontaneous cure, but which may be complicated by thrombosis, infection, ulceration"; "a disease of the veins associated with the rectum and

anus". This definition serves as the basis for the consideration of a proper and logical treatment. Then follows; "The Signs and Symptoms of Hemorrhoids; The Pathology of Hemorrhoids; Classification; Diagnosis; Examination; Etiology."

Having identified the ailment, the plan of treatment is determined, prophylactic, palliative or operative. The prophylactic and palliative are considered in considerable detail as many of the cases properly classified may be cured without operation if co-operative measures are employed with the patient. If the examination reveals the fact that pathologic conditions are such that prophylactic and palliative measures are inadequate, operative should not be delayed. The various operative methods are discussed in considerable detail, including infections, radium and electrical methods. The particular merits of the book rest on the definitions, pathology and classification, and a clear conception of the proper course of procedure to follow, thus avoiding delay, and to inspire confidence on the part of the patient, and secure the best permanent results. The general practitioner will find this book very helpful in dealing with hemorrhoids.

### A MANUAL OF PROCTOLOGY

By T. Chrittenden Hill, Ph.B., M.D., F.A.C.S., Instructor in Proctology, Harvard Graduate School of Medicine; Surgeon to Rectal Department, Boston Dispensary; Ex-President American Proctological Society. Second Edition, Thoroughly Revised; Illustrated with 101 Engravings. Lea & Febiger, 1926. Price, \$3.50.

The literature on this branch of surgery has so increased as to demand a new edition to bring the subject to date. In addition to the revision the Radical Operation for Cancer of the Rectum by Dr. R. C. Coffey of Portland has been incorporated.

The first chapter is devoted to the consideration of methods of examination and diagnosis, followed by a chapter on Catarrhal Diseases of the Rectum and Colon and Ulceration of the Anus and Rectum. Chapter four, Ulcerative Colitis. This brings us to Anal Fissure and Rectal Abscesses which involves operative considerations. We are informed that fistula often follows abscesses and methods of successful operative treatment are not easily determined, and if the proper method is not adopted disappointing results often follow. The author attempts to evaluate the different types of operative procedure recommended. This is the most interesting and important section of the book. Stricture of the Rectum is another important chapter and should receive careful consideration. Hemorrhoids are a common form of disease and are treated in many ways, but so important is the right method that a careful study of the case should be given. No one method will apply to all patients. Considerable space is given to this disease and should be carefully followed. Prolapse of the Rectum is a disease to be carefully con-



sidered. Pruritis Ani is a troublesome affection, very distressing and difficult to relieve.

There are other forms of rectal diseases considered in this book and the methods of treatment set forth are more or less successful and if carefully followed will give reasonable satisfaction. The troublesome character of the various diseases of the rectum and anus invites careful consideration of this particular book which is of especial merit.

#### HUMAN PATHOLOGY

A Text-Book, by Howard T. Karsner, M.D., Professor of Pathology, School of Medicine, Western Reserve University, Cleveland, Ohio. With an Introduction by Simon Flexner, M.D.; 900 Pages, 20 Illustrations in Color and 443 in Black and White. Published by J. P. Lippincott. Price \$10.

Dr. Karsner, in this volume, has presented the subject of pathology in a concise and authoritative manner. His viewpoint in sane and certainly in accord with the most recent advances in scientific investigation. He has added considerably to the value of the work by correlating the pathological with the clinical disease entity and in interpreting pathological changes in terms of physiological function.

The volume is divided into two sections; the one dealing with General Pathology and the second with Special or Systemic Pathology. This conventional division, as well as the chapter grouping, is designed for convenience to the student but may serve a valuable purpose to the practitioner. Following each chapter are selected references to easily accessible literature. For the most part these references are to articles written in English.

No single volume can cover the entire field of pathology in minute detail and Dr. Karsner is to be complimented on the judgment used in the assignment of space, based, as it appears to be, upon the practical importance rather than the abstract fascination of a given subject. As a text-book the subject is developed in easy and logical sequence. As a general reference book the volume will be found valuable to any physician.

R. R. S.

#### SUBMUCOUS ENDOCAPSULAR TONSIL ENUCLEATIONS

By Charles Conrad Miller, M.D., 1925—

The Oak Printing and Publishing Company.

This manual consists of two hundred and eighteen pages, with a table of contents describing each of sixteen chapters. Twenty-one full page plates. There is no index.

The object of this little book is to describe the submucous endocapsular tonsil enucleation. The technic includes removal of tonsillar tissue, leaving the mucous membrane coverings of the anterior aspect of the tonsil and the base membrane upon which the parenchyma of the tonsil rests.

The author recommends making the injection through the diseased tonsil and uses a 2 per cent novocain solution. He does not believe an operator can operate as well seated as standing, and that it is not necessary to use a tongue depressor during operations. He believes in active sterilization of all crypts with active antiseptic solutions.

The author states, "it is amusing to note from year to year the many appliances advised for the removal of adenoid masses, when this is so easily affected with a curet".

The principal topic under discussion on each page is underlined at the top of the page. The reviewer does not agree with many things in the book, nevertheless the book is interesting and may well be read by those doing tonsil surgery.

E. P. Weih.

#### DISEASES OF WOMEN

By Harry Sturgeon Crossen, M.D., F.A.C.S., Professor of Clinical Gynecology, Washington University Medical School, and Gynecologist-in-Chief to the Barnes Hospital and Washington University Dispensary; Gynecologist to St. Lukes Hospital; Consulting Gynecologist to the Jewish Hospital, St. John's Hospital and the St. Louis Maternity Hospital; Fellow of the American Gynecological Society and of the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons. Sixth Edition. Revised and Enlarged; 934 Engravings, 1 Colored Plate; 1005 Pages. Published by The C. V. Mosby Co., St. Louis, 1926.

This sixth edition of Dr. Crossen's classical work will need no introduction to the medical profession. Since the time of the appearance of his first edition in 1907, the work has been kept up to date by timely revision and suitable addition so that it has maintained its position as one of the foremost treatises on the subject of Gynecology in English print.

In this new edition, beside the revision of numerous chapters, Dr. Crossen has introduced a section on the visualization of tubal and uterine cavities by the use of iodized oil and the x-ray. Additions have been made to the sections on Pathology, X-ray and Radium Therapy. While the volume was originally designed primarily as a guide to diagnosis and treatment of Diseases of Women, in the present volume the discussion of pathology and physiology are given conspicuous attention. The presentation is thorough, complete, clear and systematic. That it is authoritative is assured by the ready acceptance of each new edition and the test of time accorded the earlier editions.

Especial attention is directed to the character and number of illustrations found in the volume. They visualize most of the important conditions discussed and are, for the most part, reproductions of photographs. In illustrating microscopical anatomy and pathology, carefully selected photomicrographs are reproduced. As a text-book for students this volume

is complete and orderly. As a reference book it deserves a conspicuous place in the library of every physician whose practice includes gynecology.

R. R. S.

#### HISTORY TAKING AND RECORDING

By James A. Corscaden, M.D., Associate in Obstetrics and Gynecology, Columbia University, New York City; 78 Pages. Published by Paul B. Hoeber, Inc., New York City; 1926. Price \$1.50.

This volume is prepared to furnish a guide to the medical student and hospital intern in the proper methods of eliciting a satisfactory history from the patient and suggesting a form for the recording of the history obtained. The careful study of this small volume cannot fail to reflect its usefulness in better histories, in more specific classification of symptoms and in a more accessible tabulation of essential data. The volume is of convenient pocket size.

#### NEW AND NON-OFFICIAL REMEDIES, 1926

Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1926. Cloth. Price, Postpaid, \$1.50. Pp. 459+XLIII. Chicago: American Medical Association, 1926.

New and Non-official Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually provides the American medical profession with disinterested critical information about the proprietary medicines which are offered to the profession and which the Council deems worthy of recognition.

An examination of the preface shows that in addition to inclusion of the new drugs which were accepted during the past year, the book has been extensively revised. Many of the preparations listed in the previous edition have been omitted and the descriptions of others have been revised to bring the statements into accord with present day knowledge. Among the products that were accepted during the past year and which are included in the new edition are scarlet fever toxin preparations used to determine susceptibility or to establish immunity and curative scarlet fever antitoxin; a parathyroid extract of determined effect on the calcium content of the blood serum; two antimony compounds for use in trypanosomic infections; tryparsamide, developed in the Rockefeller Institute for Medical Research; tetraiodophthalein sodium for the visualization of the gall-bladder and hexylresorcinol, developed by Veader Leonard.

The book contains a cumulative appendix (printed on buff paper), which is a list of references to reports of the Council and to other publications dealing with articles not described in New and Non-official Remedies. This appendix is thus a valuable

and quite extensive bibliography of proprietary and unofficial preparations.

In reference to the work of the Council on Pharmacy and Chemistry, the board of trustees of the American Medical Association in their report to the House of Delegates stated that the success of the Council's endeavors will depend less on the work done by the Council than on the support that is given by the rank and file of the medical profession and that this support can be most efficiently given by physicians (and with fullest justice to themselves and their patients) by confining their use of proprietary medicines to those that have been found acceptable for inclusion in New and Non-official Remedies. The physician who desires to support the Council actively should therefore obtain a copy of the 1926 edition. Every physician has need for a book of reference such as this volume to which he may turn for trustworthy information with regard to proprietary medicines.

#### ANNUAL REPORT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1925

Cloth. Price, Postpaid, \$1; pp. 90. Chicago: American Medical Association, 1926.

This volume contains the reports of the Council on Pharmacy and Chemistry that have been adopted and authorized for publication during 1925. Some of these reports have appeared in The Journal of the American Medical Association. Others are now published for the first time.

The annual volumes of the "Council Reports" may be looked upon as the companion volumes to New and Non-official Remedies. While the latter describes the medicinal preparations that are found acceptable, the former contain reports on the products that were not accepted. The present volume contains reports on the following products which the Council denied admission to New and Non-official Remedies: Agrilin; Benzyl Viburnum Compound; Bichloridol and Salicidol; "Colloidal Gold"; Diabesan; F. & R.'s Genuine Gluten Flour; Geroxide; Hoyt's Gluten Bran Flakes; Horse Dung Allergen-Squibb, House Dust Allergen-Squibb, LePage's Glue Allergen-Squibb and Street Dust Allergen-Squibb; Incitamin; Liposan; Loeser's Intravenous Solution of Calcium Chloride; Loeser's Intravenous Solution of Sodium Thiosulphate; Mercodel; Orargol; Parathyroid with Calcium; Pollen Extract Gramineae, Pollen Extract Chenopodiaceae, Pollen Extract Ambrosiaceae and Pollen Extract Artemisias-P. D. & Co.; Rayminol; Rheumeez; Mitysol; Some Wagner's Preparations; Tablets Calcreose with Iodine; Digifortis; Trepol and Neotrepol; Tricalcine; Viriligen, Glandular Comp. and Pineal Comp.; Vitalait (Vitalait Laboratory, Inc., Newton Centre, Mass.) and Vitanol.

The volume also contains reports on products which were included in former editions of New and



Non-official Remedies but which will not appear in the 1926 edition because they were found ineligible for further recognition.

The volume contains reports of a general nature: for instance a report on the use and utility of digestive enzymes in therapeutics and a preliminary report on spleen and red bone marrow.

Physicians who keep fully informed in regard to the value of proprietary remedies will wish to own this book.

## THE CONTROL OF DIPHTHERIA

Notwithstanding the fact that the prevention of diphtheria is engaging the attention of city boards of health and private practitioners throughout the country, and many thousand immunizing treatments have already been given, it will be a long time, we fear, before diphtheria antitoxin goes out of use, or even before the need for it becomes appreciably less than it is now. Much more extended work along the line of prevention will have to be done than has as yet been done, before diphtheria disappears from the list of children's diseases.

The makers of diphtheria antitoxin, therefore, are to be commended for doing their utmost to improve the quality of the antitoxin and the syringe package in which it is put up. Parke, Davis & Co., who began supplying diphtheria antitoxin more than thirty years ago, announce some recent developments in the purification of this product and the concentration of the dose volume. See their advertisement in this issue, "Latest Refinements in Diphtheria Antitoxin".

## NEW AND NON-OFFICIAL REMEDIES

Chicago, Illinois, October 29, 1926.

In addition to the articles enumerated in our letter of September 25, the following have been accepted:

B. B. Culture Laboratory, Inc.:

Bacillus Acidophilus Culture (B. A. Culture).

Eli Lilly & Co.:

Pertussis Vaccine—Lilly, 5 c.c.

Scarlet Fever Streptococcus Antitoxin—Lilly (Refined and Concentrated), 1 syringe.

H. K. Mulford Co.:

High Ragweed Pollen Extract—Mulford; Lamb's Quarters Pollen Extract—Mulford; Low Ragweed Pollen Extract—Mulford; Ragweed Pollen Extract (Fall)—Mulford; Timothy Pollen Extract (Spring)—Mulford; Water Hemp Pollen Extract—Mulford; Wormwood Pollen Extract—Mulford.

Butternut Protein Extract—Mulford; Cheese Protein Extract—Mulford; Cherry Protein Extract—Mulford; Cocoanut Protein Extract—Mulford; Crab Protein Extract—Mulford; Duck Protein Extract—Mulford; Duck Feathers Protein Ex-

tract—Mulford; Garlic Protein Extract—Mulford; Ginger Protein Extract—Mulford; Goose Protein Extract—Mulford; Grape Protein Extract—Mulford; Grapefruit Protein Extract—Mulford; Haddock Protein Extract—Mulford; Halibut Protein Extract—Mulford; Herring Protein Extract—Mulford; Mustard Protein Extract—Mulford; Nutmeg Protein Extract—Mulford; Paprika Protein Extract—Mulford; Parsley Protein Extract—Mulford; Parsnip Protein Extract—Mulford; Peach Protein Extract—Mulford; Pear Protein Extract—Mulford; Pecan Protein Extract—Mulford; Pineapple Protein Extract—Mulford; Prune Protein Extract—Mulford; Raisin Protein Extract—Mulford; Shrimp Protein Extract—Mulford; Sole Protein Extract—Mulford; Tuna Fish Protein Extract—Mulford; Turnip Protein Extract—Mulford; Walnut (Black) Protein Extract—Mulford.

Scarlet Fever Streptococcus Antitoxin Concentrated (for the blanching test), 1 c.c.

Parke, Davis & Co.:

Ovarian Residue Soluble Extract—P. D. & Co.

Ampules Ovarian Residue Soluble Extract—P. D. & Co., 1 c.c.

Richards Inc.:

Psyllium Seed—Richards.

Non-proprietary Articles:

Psyllium Seed.

## Change of Agency

Siomine, formerly distributed by Howard-Holt Company, is now distributed by Pitman-Moore Company, which supplies  $\frac{1}{2}$  gr., 1 gr., 2 gr., and 5 gr. capsules. The Council has continued the acceptance of Siomine under the new distributor.

Chicago, Illinois, November 27, 1926.

In addition to the articles enumerated in our letter of October 29th, the following have been accepted:

Cutter Laboratory:

Tetanus Antitoxin for Human Use, 10,000 units.

Tetanus Antitoxin for Human Use, 20,000 units.

Typhoid Prophylactic, 1 c.c. syringe.

Typhoid Prophylactic, 20 c.c. bottle.

Parke, Davis & Co.:

Scarlet Fever Streptococcus Antitoxin Concentrated Globulin—P. D. & Co., 1 c.c.

Chicago, Illinois, December 27, 1926.

In addition to the articles enumerated in our letter of November 27th, the following have been accepted:

Cutter Laboratory:

Diphtheria Toxin—Antitoxin Mixture 0.1 L.

Eli Lilly & Co.:

Cholera Vaccine, Prophylactic.

Plague Vaccine, Prophylactic.

Old Tuberculin Human Strain Concentrated, Pirquet Test.

(Continued on advertising page xxii)

## OBSTETRICS

**DR. CARL C. BICKLEY**  
OBSTETRICIAN

Waterloo, - - - - - Iowa

**WM. E. BROWN, B.S., M.D.**

Practice Limited to  
OBSTETRICS

504-6 American Trust Bldg.  
Cedar Rapids, - - - - - Iowa

## EYE, EAR, NOSE & THROAT

**DR. C. P. COOK**  
EYE, EAR, NOSE AND THROAT  
524 Iowa Building

Des Moines, - - - - - Iowa

## NURSES

**Registered Nurses Central Registry**

OF THE

SEVENTH DISTRICT IOWA STATE NURSES ASS'N

1140 Nineteenth Street - - - Des Moines, Iowa

*Calls answered day or night*

Telephone Drake 352—Louise Price, R.N., Registrar

Write the Business Manager of the Journal,  
Des Moines, for rate on card space, and send  
in your copy for card.

## List Your Wants in This Space

**SITUATIONS WANTED**—Salaried Appointments for Class A physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

**WANTED**—To get in touch with hospital or group of surgeons desiring anesthetist or combined anesthetist and exodontist beginning next summer or early fall. Can furnish standard modern gas apparatus if necessary. Address G. R., care Iowa State Medical Society.

**GET OUR FREE SAMPLES** of stationery for Professional use. Bargain prices on envelopes, statements letter heads and other printing. Woolverton, Dept. MS, Cedar Falls, Iowa.

**WANTED**—Position in office or hospital as assistant, registered pharmacist, or business manager. Many years' experience in prescription work and as assistant to physicians and surgeons in country and hospital practice. Can furnish best of references from professional and business men. Married. J. M. Wolden, Wallingford, Iowa.

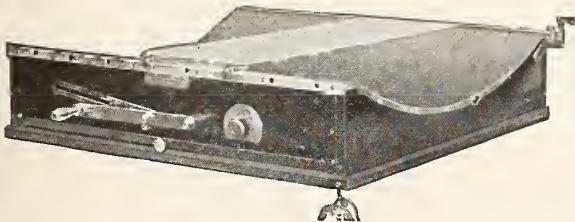
## SAVE MONEY ON YOUR X-RAY SUPPLIES

Get Our Price List and Discounts Before You Purchase

WE MAY SAVE YOU FROM 10% TO 25%  
ON X-RAY LABORATORY COST

Among the Many Articles Sold Are

X-RAY FILM, Duplitized or Dental, Eastman, Superspeed or Agfa Film. Heavy discounts on standard package lots. X-Ograph, Eastman, Justrite and Rubber Rim Dental Film, fast or slow emulsion.



**BRADY'S POTTER BUCKY**

DIAPHRAGM insures finest radiographs on heavy parts, such as kidney, spine, gall-bladder or heads.

Curved Top Style—up to 17x17 size cassettes.....\$250.00

Flat Top Style—holds up to 11x14 cassettes..... 175.00

**DEVELOPING TANKS**, 4, 5 or 6 compartment stone, will end your dark room troubles. Ship from Chicago, Brooklyn, Boston or Virginia. Many sizes of enameled steel tanks.

**INTENSIFYING SCREENS**—Patterson, T. E., or Buck X-Ograph Screens for fast exposure alone or mounted in Cassettes. Liberal discounts. All-metal cassettes. Several makes.

*If you have a machine have us put your name on our mailing list.*

**GEO. W. BRADY & CO.**

779 So. Western Ave., - Chicago

*Read the  
Advertisements*



## NEW AND NON-OFFICIAL REMEDIES

(Continued from page 74)

Tuberculin Ointment for the Moro Percutaneous Test.

Tuberculin T. R. Concentrated Human Strain.

Tuberculin B. E. Concentrated Human Strain.

Tuberculin B. F. Concentrated Human Strain.

Ampoules Glucose (Dextrose U. S. P.) Lilly 10 Gm., 20 cc.

Ampoules Glucose (Dextrose U. S. P.) Lilly 25 Gm., 50 cc.

H. A. Metz Laboratories, Inc.:

Gynergen

Ampules Gynergen, 1.1 cc.

Tablets Gynergen, 0.001 Gm.

Parke, Davis &amp; Co.:

Bismuth Salicylate in Oil—P.D. &amp; Co.

Winthrop Chemical Co.

Tutocain

Tablets Tutocain No. 1 (with epinephrin) 0.03 Gm.

Tablets Tutocain No. 2 (with epinephrin) 0.03 Gm.

Tablets Tutocain No. 3, 0.03 Gm.

Tablets Tutocain No. 4 (with epinephrin) 0.05 Gm.

Tablets Tutocain No. 5, 0.1 Gm.

## TRUTH ABOUT MEDICINES

## New and Non-Official Remedies

Scarletinal Antitoxin (Unconcentrated)—Mulford. —A scarlet fever streptococcus antitoxin (Jour. A. M. A., May 2, 1925, p. 1338). It is prepared from the serum of horses treated with subcutaneous injections of toxic filtrate from cultures of scarlet fever streptococci and also with intravenous injections of the streptococci themselves. Each cc. neutralizes at least 10,000 skin test doses of scarlet fever toxin. Marketed in packages of one syringe containing 10 cc. (prophylactic dose) and in packages of one vial containing 40 cc. (therapeutic dose). H. K. Mulford Company, Philadelphia.

Insulin—Stearns, 80 Units, 5 cc.—Each cc. contains 80 units of insulin—Stearns (New and Non-official Remedies, 1925, p. 174). Frederick Stearns & Co., Detroit.

Insulin—Stearns, 80 units, 10 cc.—Each cc. contains 80 units of insulin—Stearns (New and Non-official Remedies, 1925, p. 174). Frederick Stearns & Co., Detroit.

Tuna Fish Protein Extract Diagnostic—P. D. & Co.—A protein extract diagnostic—P. D. & Co. (New and Non-official Remedies, 1925, p. 289). Parke, Davis & Co., Detroit. (Jour. A. M. A., July 4, 1925, p. 35.)

# Want X-Ray Supplies "P-D-Q"?

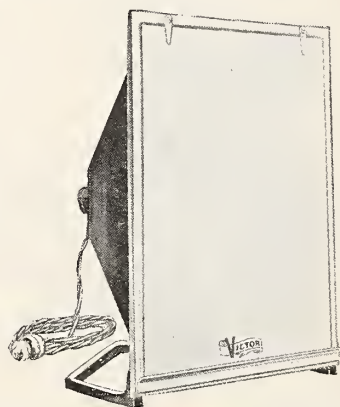
There are over 30 District Branches now established by the Victor X-Ray Corporation throughout U. S. and Canada. These branches maintain a complete stock of supplies, such as X-ray films, dark room supplies and chemicals, barium sulphate, cassettes, screens, Coolidge tubes, protective materials, etc., etc. Also Physical Therapy supplies.

The next time you are in urgent need of supplies place your order with one of these Victor offices, conveniently near to you. You will appreciate the prompt service, the Victor guaranteed quality and fair prices.

Also facilities for repairs by trained service men. Careful attention given to Coolidge tubes and Uviarc quartz burners received for repairs.

**VICTOR X-RAY CORPORATION**  
Main Office and Factory: 2012 Jackson Blvd., Chicago

Des Moines Branch - - - 303 Equitable Bldg.



## Victor Radiograph Illuminator

A distinct improvement in negative observation apparatus

**All Metal and Glass**

Complete for 110-volt current, \$21.90

**Quality Dependability Service Quick-Delivery**  
*~ ~ Price Applies to All ~ ~*

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, MARCH, 1927

No. 3

## HISTORICAL NOTES\*

WALTER L. BIERRING, M.D., Des Moines

In the November 13, 1851 issue of the Iowa Star, weekly journal, appeared the following notice<sup>1</sup> of the organization meeting of the Polk County Medical Society in Fort Des Moines<sup>2</sup> on October 24, 1851.

Fort Des Moines, October 24, 1851. Agreeable to a notice given by publication the convention met. And on motion of A. L. Gray, M.D., Fort Des Moines, A. Y. Hull, M.D., Lafayette, was called to the chair and on motion of Dr. Huntsman, Dr. A. L. Gray was appointed secretary.

On motion of D. V. Cole, M.D., of Fort Des Moines, a committee of three was appointed by the chair to report a constitution for this society, whereupon Cole, M.D., Dr. Murdock and Plumley, M.D. were appointed said committee.

On motion of Huntsman, M.D., a committee of three was appointed by the chair to report a code of ethics by which the members of this society shall be governed in practice, upon which Huntsman, M.D., A. L. Gray, M.D., Dr. Collet were made said committee.

The convention then took a recess for one hour, at the expiration of which the convention again convened, and the committee on constitution reported, which report was taken up, article by article, agreeable to motion to that effect, and the following constitution was adopted, viz.:

### Constitution

Article 1. This association shall be known as the Polk County Medical Society, and shall meet quarterly at Fort Des Moines.

Article 2. The officers of this society shall consist of a president, vice-president and secretary who shall act as treasury, and a board of censors, consisting of three.

Article 3. The officers of this society shall perform all duties assigned to such officers; and shall hold their office for one year and until their successors are elected and qualified.

Article 4. They shall be chosen by ballot, the majority of all the votes cast necessary to a choice.

Article 5. Any regular graduate in good standing may become a member of this society on presentation of a diploma from any respectable medical college, or a license from any respectable medical society, or upon the recommendation of the board of censors and the payment of initiation fee of one dollar.

Article 6. Any person, upon the recommendation of the board of censors shall be found qualified to practice medicine, surgery, etc., will be entitled to receive a certificate of qualification signed by the president and secretary and on the payment of one dollar into the treasury.

Article 7. This society shall have power to open a correspondence with similar societies in the state.

Article 8. Any member of this society who shall procure a patent for a remedy or instrument of surgery, or who prescribes a medicine without knowing its composition or who hereafter gives a certificate in favor of a patent remedy or be guilty of any dishonorable conduct shall on motion be expelled by a majority of the members present concurring therein.

Article 9. This society, by a vote of the majority of the members present shall have power to levy a contribution on its members to meet the expenditures of the society.

Article 10. This constitution may be amended at any regular meeting of the society provided, the proposed amendment is submitted one meeting previous to its being acted upon and a majority of the members present voting affirmatively.

On motion of D. V. Cole, M.D., the society went into the election of officers, which resulted in the election of A. Y. Hull, M.D., of Lafayette, president; D. V. Cole, M.D., of Fort Des Moines, vice-president; Huntsman, M.D., of Lafayette, secretary and treasurer.

A. Y. Hull, M.D.,

Murdock, M.D.,

Huntsman, M.D.,

Board of Censors.

On motion a committee of three was appointed on fee bill, whereupon D. V. Cole, M.D., A. L. Gray, M.D., and Dr. Collet were appointed said committee.

The committee on the Code of Ethics reported that the code of the National Medical Society be adopted for the present and that a committee of three be appointed to report a code for this society

\*Presented at Seventy-Fifth Anniversary Meeting, Polk County Medical Society, Des Moines, Iowa, December 20, 1926.

1. A photostat reproduction accompanies these notes.

2. When the state capital was relocated in 1855 by Act of the General Assembly the name of the town was changed from Ft. Des Moines to Des Moines.



at the meeting; report received, and Gray, Cole and Collet were made said committee.

On motion of D. V. Cole, M.D., a committee of three was appointed to inquire into and report at the next meeting of the society, the causes that depress the profession in Polk County: Cole, Murdock and Collet were appointed said committee.

On motion it was resolved that the president propose and read before this society at its next meeting an essay on some medical subject.

On motion Dr. Gray was made a committee on publication, and the papers of this city be requested to publish the proceedings of this convention.

The society having completed its organization the following persons came forward and became members of this society: A. Y. Hull, M.D. of Lafayette, Huntsman, M.D., D. V. Cole, M.D., Fort Des Moines, Dr. A. A. Murdock, Dr. E. T. Collet, A. L. Gray, M.D., Plumley, M.D. of Hartford.

On motion the society adjourned to meet on the last Friday in January, 1852, at 12 o'clock m.

A. Y. Hull, M.D., Chairman.

A. L. Gray, M.D., Secretary.

At the next meeting of the society in January, 1852, Drs. H. C. Grimm and J. J. Sanders were elected to membership. At this meeting Dr. Hull, president of the society, had a paper on "The Wants of the Medical Profession". In his paper the doctor argued that what the profession most needed was "a corps of competent physicians, men for whom nature had done much, and who professed a liberal preparatory and a thorough medical education". Another deficiency noted was "the lack of healthy discriminating tone in public sentiment to the end that the ability of the competent physician may be fully appreciated".

In the Iowa State Journal of March 4, 1852, appears the report of the committee appointed at an earlier meeting to draft a "Code of Medical Ethics", and which was adopted by the society:

1. It declares for the observance of secrecy and delicacy in the relations of physicians with their patients.

2. It would avoid all visits beyond those necessary to the good of the patient.

3. It deprecates gloomy prognostications, or the urging to the importance of one's services, but advises timely notice of danger to the friends, and, when safe, to the patient himself.

4. It recommends consultations in difficult and protracted cases.

5. It counsels kindness, and generous allowance for the mental debility of the patient.

6. It was regarded as highly derogatory to the dignity of the profession to resort to public advertising, calling attention to those afflicted with particular diseases, offering advice to the poor gratis, promising radical cures, publishing cases and operations, etc.

7. When called to see another physician's patient, the code prescribes that the physician should make his prescription to palliate or temporarily relieve the patient until the attending physician resumes his charge of the case.

8. It maintains that, ordinarily, the physician called in should make no charge against the patient.

9. It declares that no charge should be made for attendance on another physician's family; but the other physician, if able, should remunerate him as he is able to do so.

10. Comments to the disparagement of another physician's treatment it declares to be "a base violation of (the code of) a gentleman".

The remaining sections are in substance as follows:

11. A physician should not take charge of another's patient unless in consultation, or on relinquishment of the case, or a due notification that the other's services have been dispensed with. In such a case, he should make no reflection on his predecessor.

12. General resume.

13. Consult only with regular physicians.

14. In consultations observe respect for others' judgment.

15. After examination retire for interchange of opinions, consultations to be secret and confidential.

16. Consultations concluded, the consulting physician should attend no more unless solicited.

The report was signed by Dr. A. L. Gray, Committee on Publication.

The recorded history of the society seems to come to rather an abrupt end in 1852. It is possible that the subsequent proceedings ceased to interest the press but the fact remains that no further reports of its meetings are to be found in either the Star, the Times or the Journal.

According to these records, the Polk County Medical Society is the oldest county society in the state. While the Keokuk Medical Society was organized one year previously, it limited its membership to the city of Keokuk, but gradually developed into the Lee County Society.

The conference of doctors held in Fort Des Moines seventy-five years ago was attended by only seven physicians, but it brought together the widely scattered medical men of the county and organized them for conference and future harmonious action. It indicated a progressive spirit, because this community at that time was one of the very sparsely settled portions of the state.

In connection with this first meeting it is interesting to recall that only six years before on October 11, 1845, the reservation centering around Fort Des Moines was first thrown open for actual settlement. Previous to that it was undisputed Indian territory and the hunting

# IOWA STAR.



---

A WEEKLY JOURNAL—Devoted to Politics, News, Agriculture, Commerce, Literature, Amusement, &c. &c. &c.

---

C. Bates & A. Y. Hall, Editors.
**Fort Des Moines, November 13, 1851.**
Volume 2, Number 50.

---

## Medical Convention.

**PROCEEDINGS OF THE MEDICAL CONVENTION, FT. DES MOINES, OCT. 24TH 1851.**

Agreeable to a notice given by publication the convention met. And on motion of A. L. Gray M. D. of Fort Des Moines, A. Y. Hull M. D. of Lafayette was called to the chair and on motion of Dr. Huntman Dr. A. L. Gray was appointed secretary.

On motion of D. V. Cole M. D. of Fort Des Moines a committee of 3 was appointed by the chair to report a constitution for this society, whereupon Cole, M. D. Dr. Murdoch and Plunley M. D. were appointed said committee.

On motion of Huntman M. D. a committee of 3 was appointed by the chair to report a code of Ethics by which the members of this society shall be governed in practice upon which Huntman M. D. A. L. Gray M. D. Dr. Collet were made said committee.

The convention then took a recess for one hour, at the expiration of which the convention again convened, and the committee on constitution reported, which report was taken up, article by article, agreeable to a motion to that effect, and the following constitution was adopted, viz

**CONSTITUTION**

Art. 1<sup>st</sup> This association shall be known as the Polk co., Medical Society, and shall meet quarterly at Ft. Des Moines.

Art. 2. The officers of this society shall consist of a President, vice-president and secretary who shall act as Treasurer and a Board of Sensors, consisting of 3.

Art. 3. The officers of this society shall perform all duties assigned to such officers; and shall hold their office for one year and until their successors are elected and qualified.

Art. 4. They shall be chosen by ballot, the majority of all the votes cast entitling to a choice.

Art. 5. Any regular graduate in good standing may become a member of this society on presentation of a diploma from any respectable Medical College, or a license from any respectable Medical Society, or upon the recommendation of the Board of Sensors and the payment of initiation fee of one dollar.

Art. 6. Any person, upon the recommendation of the board of sensors shall be found qualified to practice Medicine Surgery &c., will be entitled to receive a certificate of qualification signed by the president and secretary and on the payment of one dollar into the treasury.

Art. 7. This society shall have power to open a correspondence with similar societies in the state.

Art. 8. Any member of this society who shall procure a patent for a remedy or instrument of surgery, or who prescribes a medicine without knowing its composition or who negligently gives a certificate in favor of a patient thereby or he guilty of any dishonorable conduct shall be expelled by a majority of the members present concurring therein.

Art. 9. This society, by a vote of the majority of the members present shall have power to levy a contribution on its members to meet the expenditures of the society.

Art. 10. This constitution may be amended at any regular meeting of the society provided, the proposed amendment is submitted one meeting previous to its being acted upon, and a majority of the members present voting affirmatively.

On motion of D. V. Cole M. D. the society went into the election of officers, which resulted in the election of A. Y. Hull M. D. of Lafayette President, D. V. Cole M. D. of Fort Des Moines Vice President, Huntman M. D. of Lafayette Secretary & Treasurer.

**Board of Sensors.**

A. Y. Hull M. D.  
Dr. Murdoch,  
Huntman M. D.

On motion a committee of three was appointed on Feb Bill, whereupon D. V. Cole M. D. A. L. Gray M. D. and Dr. Collet were appointed said committee.

The committee on the code of Ethics reported that the code the National Medical Society be adopted for the present and that a committee of three be appointed to report a code for this society at the meeting report received, and Gray, Cole and Collet were made said committee.

On motion of D. V. Cole M. D. a committee of three was appointed to inquire into and report at the next meeting of the society, the causes that depress the profession in Polk co. Cole, Murdoch and Collet were appointed said committee.

On motion it was resolved that the President propose and read before this society at its next meeting any essay on some medical subject.

On motion Dr. Gray was made a committee on publication, and the papers of the city be required to publish the proceedings of this convention.

The society having completed its organization the following persons came forward and became members of the society viz:

A. Y. Hull, M. D. of Lafayette,  
Huntman, M. D. D. V. Cole, M. D.,  
Ft. Des Moines; Dr. A. A. Murdoch,  
Dr. C. T. Collet, A. L. Gray, M. D.  
Plunley, M. D. of Hartford.

On motion the society adjourned to meet on the last Friday in January 1852 at 4 o'clock.

A. Y. HULL M. D. Chairman.  
A. L. GRAY M. D. Secretary.

grounds of the Sac and Fox tribes. It was not until May 20, 1843, that the military post of Fort Des Moines was established by Captain Allen, in charge of a company of the First Dragoons, being joined the next day by a company of the 1st U. S. Infantry under command of Capt. Gardenier. This fort was unique, in that it was the only military fort established by the government for the protection of the Indians and their interests.

The second fort building erected was a hospital at the north end of the grounds about 300 feet west of the Des Moines river, near the present site of Second and Court streets. The hospital was ready for occupancy late in June, 1843. After the last band of Sac and Foxes had been removed to their new reservation west of the Missouri river and the surrounding territory had been opened to settlement, an early record states "by noon on March 10, 1846, Lieutenant Grier and his handful of Dragoons marched out of the garrison and Fort Des Moines as a military post ceased to exist".

The census of 1847 gives the little village of Fort Des Moines a population of 127. In 1853 the population is given as 650, and by 1856 it had risen to 3830. A census taken in 1857 when Des Moines became the capital, gave the population

as nearly 5000, and that of Polk County as over 10,000.

The first president of the Polk County Medical Society, Dr. Andrew Y. Hull, was an interesting product of frontier conditions. While he was more politician and public servant than practitioner, by reason of the many calls upon men of brains and education to public service in the early life of the community and county, nevertheless, he was a physician of large experience and was keenly interested in all that pertained to the practice of his profession. From the press notices one learns that he was co-editor of the Iowa Star, and a staunch adherent of the Democratic party, being elected to the Senate of the Fourth General Assembly from a district comprising at that time twenty-four counties in the then sparsely settled interior, northern and northwestern Iowa. His opportunities for public and private services were so numerous that we find him rounding out a marked career as land speculator, town promoter, editor, politician and legislator. He was equally "at home on his feet" as pleader on the re-location of the state capital, or as a lecturer before the pioneer medical society of central Iowa, or "the wants of the medical profession". About the time that Doctor Hull became asso-



ciate editor of the Star in 1851, the editor of the State Journal, a rival paper, pictures the Doctor as "a fine looking man and as gentlemanly with all as the county holds. He regrets that such a handsome man should lend his countenance to democracy". Doctor Hull was the father of Mrs. (Dr.) H. C. Potter and Capt. John A. T. Hull, for many years republican representative of the 7th Congressional District in Congress, and the grandfather of Dr. Albert G. Hull, M.D. and Brigadier General John A. Hull, Judge Advocate General, United States Army.

Dr. David V. Cole, the first vice-president of the Polk County Medical Society, came to Fort Des Moines in 1848, practicing in this community for many years and then removing to southern Kansas. When the State Medical Society held its first meeting in Des Moines in 1868, Doctor Cole is listed as one of the twenty members in attendance, and the proceedings also record that he acted as delegate from Polk County Medical Society to each of the State Society sessions of 1868 to 1876 which indicated a deep interest in society affairs.

Dr. H. C. Huntsman probably attained the greatest professional distinction of any of the founders of the society. He practiced in Polk County from 1851 to 1855, when he moved to Pella, remaining there until the beginning of the Civil War, and upon his return from the army service in 1866 located in Oskaloosa where he continued to practice until his death in 1885 at sixty years of age. At the time of his death he was the only surviving member of the first graduating class, 1851, of the medical department of the University of Michigan. In the Iowa State Medical Reporter of February, 1887, appears an obituary notice of Doctor Huntsman by Dr. Woods Hutchinson, from which the following is quoted. "Doctor Huntsman's life is a striking illustration of what may be accomplished by pluck, brains, and invincible determination and is a refreshing inspiration to all who are engaged in the manly struggle for a name and place in the world. From farm laborer to president of the State Medical Society, from cook on a lake steamer to regent of the State University, his promotion was won by sheer force of merit backed by indomitable perseverance. His whole history is a living embodiment of Buffon's statement that 'genius is industry'".

There are no further records available regarding the other four charter members, Drs. Gray, Collet, Murdock and Plumley. In a copy of the Iowa Star in November, 1849, appears the pro-

fessional card of Dr. E. T. Collet along with that of Dr. D. V. Cole.

The other physicians of this pioneer period probably took an active part in the early history of the county medical society although no record is made of the same.

The first physician in Fort Des Moines was Dr. J. W. Kirkbride, an army surgeon attached to the military garrison, who went away when the troops were withdrawn in 1846.

The first civilian physician to practice medicine in Polk County was Dr. Thomas K. Brooks, who came to Fort Des Moines in September, 1845, settling in what was called Agency Prairie in the eastern part of the town. At first he combined farming with medical practice, but soon had to devote himself exclusively to the latter occupation. Doctor Brooks was the second postmaster of Fort Des Moines, serving from March to December, 1846. He was very active in the endeavor to remove the state capital from Iowa City to Des Moines, and was largely instrumental in securing the seat of government for Des Moines. During his later years he retired from practice and died in 1868 at the age of fifty-seven years. In the Annals of Iowa, April, 1870, appears the following: "Dr. Thos. K. Brooks was a doctor, and more than a doctor. When he died on February 28, 1868, the General Assembly closed one day in respect to his memory. Members of both bodies attended his funeral. Doctor Howe, first editor of the Annals of Iowa, credited Doctor Brooks with rare qualities of the soul, 'by whose death Iowa lost one of her most public spirited and valuable private citizens'".

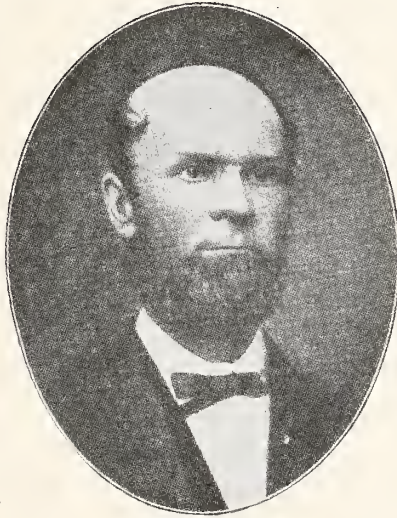
Dr. Pierce B. Fagan is one of the pioneer physicians whose name appears in many places in the chronicles of old Fort Des Moines. He "came to town" in June, 1846. A graduate from the McDowell (Eclectic) College of Medicine of St. Louis, he came with the prestige of considerable experience in medical teaching and hospital work in St. Louis and Cincinnati, and soon acquired a large practice. He is referred to "as an able physician and surgeon of excellent literary accomplishments, something of a politician, and withal of a very genial and amiable disposition". In 1848 he was nominated for state senator on the Whig ticket, and made a strong canvass against his friend and roommate, Mr. P. M. Casady, on the democratic ticket. One of the traditions of the campaign was that the lawyer's (Casady) friends insisted that health was the first consideration and that while the lawyer could be spared, the doctor



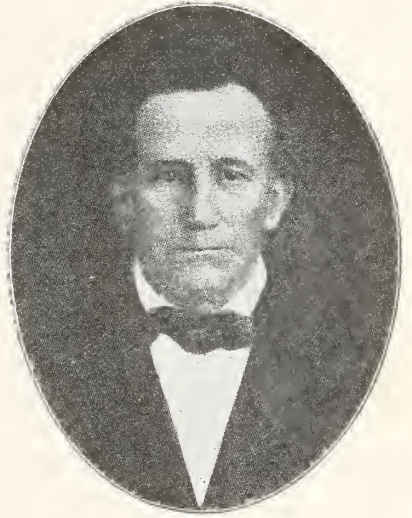
## Pioneer Physicians of Polk County



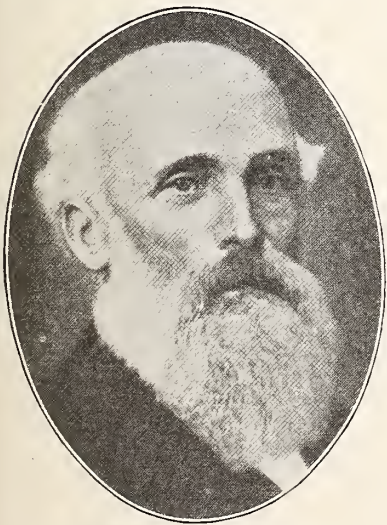
DR. THOS. K. BROOKS  
First Physician in Polk County  
Arrived Fort Des Moines, 1845



DR. A. Y. HULL  
First President of Polk County  
Medical Society, 1851-1852



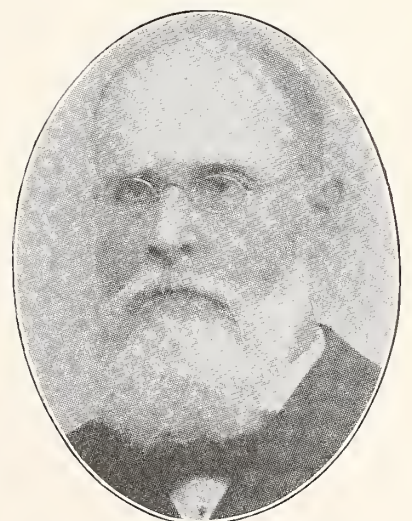
DR. FRANCIS C. GRIMMEL  
Arrived Fort Des Moines  
October 15, 1846



DR. H. L. WHITMAN  
Located Fort Des Moines  
1853



DR. C. H. RAWSON  
Des Moines  
1857-1884



DR. W. H. DICKINSON  
Des Moines  
1858-1898



was needed at home. The district so voted. In 1852 Doctor Fagan removed to Santa Cruz, California.

The next physicians prominently mentioned are the two Grimmels, Dr. Henry C. and Francis C. Grimmel who came in October, 1846.

Special mention is made of Dr. Francis C. Grimmel, who accompanied by his wife and five children, arrived at Fort Des Moines on October 15, 1846, coming overland with teams, from Perry county, Ohio. He is referred to as a typical frontiersman, a physician and everything else to his community. His drug store (the first in the community) at the corner of Sixth and Grand, was a business and political center, and his home a center of church and social activities".

He built the first frame residence in Fort Des Moines in 1848 on the present site of St. Ambrose Cathedral, and in 1856-7 he built the first brick building where the Victoria Hotel now stands, which at the time and for several years after was the largest and best residence in the city. One of the great social events in Fort Des Moines in the fall of 1847 was the Casady-Grimmel wedding, when the daughter of Doctor Grimmel was married to Mr. P. M. Casady, the father of Mr. Simon Casady of Des Moines. This further interesting item is noted "the Doctor having acquired a competency in 1855, retired from active business". He died in February, 1862, "much lamented by the many who knew him".

Dr. H. H. Saylor, who was "known all over the county" also came in 1846 and located in a cabin on Saylor bottom, where he commenced the practice of medicine. Later he practiced in Des Moines for many years, up to the time of his death in 1874.

Dr. Alexander Shaw settled here in the early fifties, and is referred to as "one of the rustlers" for the east side. He early retired from practice and took an active part in the management of the Iowa State Fair. At the time of his death in 1893 he was secretary of the Agricultural Society of Colorado.

In 1853 came Dr. Henry Courtney, "courteous gentleman and excellent physician, who practiced his profession with much success until his untimely and much lamented death in 1861". He was elected president of the Polk County Medical Society in 1858 and is referred to "as one of the most active and useful members of the society". The Register of June 12, 1861, speaking of the late Dr. Courtney says "he was one of the most popular, successful and scientific physicians that ever located in central Iowa".

Dr. H. L. Whitman was evidently one of the ablest and best known of the earlier physicians. He was born in Connecticut, graduated at Amherst in 1839, and received his degree in medicine at Jefferson Medical College in 1845. For several years he practiced at Freeport, Illinois, and Dubuque, coming to Fort Des Moines in 1853, where he continued in active practice until 1875. He died August 17, 1885, in his seventy-first year. He was the president of the County Society in 1868, when the Iowa State Medical Society held its first meeting in Des Moines. This was the year in which the State Society was incorporated as a corporate body, and Doctor Whitman and Dr. A. G. Field were among the five signers of the articles of incorporation. Mr. F. M. Hubbell, notary public, witnessed the signatures and is the only survivor of this interesting event.

The name of Dr. W. H. Ward is frequently noted among the pioneers. He first came to Fort Des Moines from Indiana in the early part of 1849, but remained in practice here only a short time, going to Dudley in Warren county. When the town of Dudley was drowned out in the flood of 1851, and moved to the present site of Carlisle, Doctor Ward went with the town, continuing to practice there until 1862 when he returned to Des Moines. He was one of the leading physicians of this community for twenty years, when he went to Arizona and later practiced in Los Angeles.

Dr. Charles Hamilton Rawson came to Des Moines in 1857. After graduation in 1849 at the College of Physicians and Surgeons of New York City, he became surgeon of the steamship Lewis, bound for California, via Cape Horn. He survived the wreck of the steamer, and for two years served as surgeon in the Marine Hospital in Francisco. His fine medical training and former practical experience soon gained him recognition as one of the leaders in the profession of the city. When the Civil War came he was appointed surgeon of the 5th Iowa Infantry and later became Brigade Surgeon of the 3rd Brigade, Seventh Division, Army of the Mississippi.

Speaking of his appointment as regimental surgeon, the Register of June 26, 1861, said "The Doctor has had much experience and his coolness of nerve, resolution and professional judgment will render him an invaluable auxiliary to his regiment".

He returned to Des Moines after the war and formed a partnership with Dr. W. H. Ward which continued until 1881.

Doctor Rawson always took an active interest in the County Medical Society and was a frequent delegate to the sessions of the State Society as well as a contributor to its programs. He died "in the harness" on June 27, 1884, at the age of fifty-five years. His descendants are honored citizens of Des Moines and the Rawson Block on Locust street is one of his legacies to the structural growth of the city.

Other pioneer physicians coming in the fifties who left their impress on the period were Drs. A. M. Overman, David Tisdale, William P. Davis, William Russell, J. C. Allen, J. O. Skinner (president County Society, 1876), B. L. Steele, William Molesworth, James Lillie, Isaac Windle, James Campbell, and E. J. McCorrisk. They all served their generation faithfully and were an honor to the profession.

Special mention should be made of Dr. W. H. Dickinson the leading representative of the Homeopathic medical profession of his day. He was born in the province of Quebec in 1828, and after graduating in medicine in 1858, he came to Des Moines in March of that year, continuing in active practice until his death in 1898. From 1876 to 1894 he was a professor in the Homeopathic Medical School at Iowa City, the last two years serving as dean of the faculty. It was during these years that the writer first met him, and learned to know his fine qualities. The intimate friendship that was formed during this period between Doctor Dickinson and Dr. W. D. Middleton, the dean of the regular medical school, was a further testimony to the high character of the man.

It seems fitting to refer briefly to some of the medical pioneers of a somewhat later period.

The name which appears most frequently in the annals of these earlier years is that of Dr. A. G. Field, and in any history of Polk county he deserves an honored place. He opened an office in the Savery Hotel, now the Kirkwood, in May, 1864. He was then about thirty-five years of age, having previously practiced in Centerville, Iowa, and Ohio, besides taking a number of extensive post-graduate courses in New York City. He was one of the first physicians to use a microscope and as early as 1872 contributed several classic articles on microorganisms and their relations to infectious diseases. In 1871 he was elected president of the State Society, and in 1876 was delegate from Iowa to the International Medical Congress in Philadelphia. Although not actively engaged in practice during later years, he always kept up his interest in county and state society matters. At the annual session of the

State Society in 1922 at ninety-three years of age, he made a very happy address, recalling the fact that it was fifty years since his presidency of the Society. He died on May 31, 1924.

Dr. George P. Hanawalt was one of those rugged characters that adds honor to any calling. Coming to Des Moines in 1869 he was one of the recognized surgeons of this locality for nearly forty years, gaining special prominence in railway surgery. He died on July 6, 1912, in his seventy-sixth year. During all of his professional life, he was physician and surgeon, and it never occurred to him that he could not perform the functions of both, and this was accepted by a large and influential following. Doctor Hanawalt in his uneventful life probably held more places of trust than any other medical man in Des Moines. This was largely due to his strong devotion to duty.

Dr. J. F. Kennedy is deserving of special mention. He located in Des Moines in 1870, and for more than thirty-five years was one of the active members of the society. During twelve years he was secretary of the State Medical Society. In 1885 he was appointed the first secretary of the Iowa State Board of Health, which position he held for twenty-two years.

Dr. Homer R. Page was a distinct addition to the medical life of Des Moines. Being a teacher of the classics for a number of years following the Civil War gave him an unusual preparation for the study of medicine, which he completed at the State University Medical College at Iowa City in 1871. He practiced first at New Sharon, coming to the capital city in 1878. He was the first professor of obstetrics in the Iowa College of Physicians and Surgeons. He served the county society as president in 1886, and just twenty years later his son, Dr. Addison C. Page, was elected to the same position, thus affording the only instance in the history of the society of two generations being honored by election to the presidency.

The distinction of the longest period of practice in Polk County belongs to Dr. James Taggart Priestley who came to Des Moines in 1874 retiring from practice in 1924, after fifty years of devoted medical service in this community. He typified the rare combination of the beloved family physician and the cultured clinician of these later days.

Because of lapses in the record, it has not been possible to collect a complete roster of the officers of the society. An effort is made to give the names of the presidents that are available, and the years in which they served.



1851-2, Dr. A. Y. Hull  
 1859, Dr. Henry Courtney  
 1868, Dr. H. L. Whitman  
 1869, Dr. A. G. Field  
 1875, Dr. C. H. Rawson  
 1876, Dr. J. O. Skinner  
 1877, Dr. G. P. Hanawalt  
 1879-80, Dr. W. H. Ward  
 1881, Dr. J. T. Priestley  
 1882, Dr. J. F. Kennedy  
 1883, Dr. J. A. Blanchard  
 1884, Dr. A. C. Simonton  
 1885, Dr. F. E. Cruttenden  
 1886, Dr. Homer R. Page  
 1887, Dr. J. W. Cokenower  
 1888, Dr. Lewis Schooler  
 1894, Dr. J. B. Hutton  
 1895, Dr. D. W. Finlayson  
 1896, Dr. R. A. Pachin  
 1897, Dr. C. E. Stoner  
 1898, Dr. C. E. Currie  
 1899, Dr. N. M. Voldeng  
 1900, Dr. H. G. Emery  
 1901, Dr. M. F. Patterson

1902-3, Dr. C. D. Rawson  
 1904, Dr. E. Luther Stevens  
 1905, Dr. E. E. Dorr  
 1906, Dr. A. C. Page  
 1907, Dr. F. A. Ely  
 1908, Dr. N. C. Schiltz  
 1909, Dr. A. R. Amos  
 1910, Dr. W. S. Conkling  
 1911, Dr. O. J. Fay  
 1912, Dr. W. L. Bierring  
 1913, Dr. D. W. Smouse  
 1914, Dr. G. N. Ryan  
 1915, Dr. F. E. V. Shore  
 1916, Dr. J. C. Rockafellow  
 1917, Dr. H. A. Minassian  
 1918, Dr. W. E. Sanders  
 1919, Dr. J. H. Peck  
 1920, Dr. J. W. Osborn  
 1921, Dr. Channing G. Smith  
 1922, Dr. A. P. Stoner  
 1923, Dr. J. Charles Ryan  
 1924, Dr. M. L. Turner  
 1925, Dr. W. W. Pearson  
 1926, Dr. T. A. Burcham

The Polk County Medical Society with its membership of 245 has become the largest county society in the state.

The period of seventy-five years since its organization has been an era of the greatest progress in scientific medicine. The conception of the nature and cause of disease has completely changed and the triumphs of medical and surgical treatment constitute one of the distinct achievements of modern civilization.

The Polk County Medical Society has maintained at all times the highest professional ideals and contributed to medical leadership during every phase of its history. In contributions to the medical literature of the period, the advancement of the standards of medical education, and every phase of public health, the name of the society has been carried far afield. Five of its members have served as presidents of the State Medical Society, Drs. A. G. Field in 1872, G. P. Hanawalt in 1880, Lewis Schooler in 1894, James Taggart Priestley in 1904, Oliver J. Fay in 1924. A number of the present members were elected president before their admission to the Polk County Society. Dr. David S. Fairchild from Clinton in 1895, Dr. Walter L. Bierring from Iowa City in 1907, and Dr. Nelson M. Voldeng from Cherokee in 1910. The Polk County Medical Society has furnished the majority of the secretaries of the State Society. Dr. A. G. Field served from 1867 to 1879, Dr. G. P. Hanawalt 1870 to 1872, Dr. J. F. Kennedy 1873-1885, Dr. J. W. Cokenower 1895-1901, Dr. J. W. Osborn 1912-1916, Dr. Tom B. Throckmorton from 1916 to the present.

The development of the County Medical Society from the days of the pioneer to the present is the best index of the remarkable growth of Des Moines and the surrounding community. Here as elsewhere, the doctor, in stimulating the higher ideals of social and cultural life, and con-

structive citizenship, has contributed his share to the progress and happiness of his time.

#### REFERENCES

- Brigham: History of Des Moines and Polk County, 1911.  
 Porter: Annals of Polk County, 1898.  
 Fairchild: History of Medicine in Iowa, 1926.

#### PERIODIC HEALTH EXAMINATION\*

CHARLES ADDISON ELLIOTT, M.D.

Professor of Internal Medicine, Northwestern University  
 Medical School, Chicago

There has been a feeling among physicians that much could be done along the line of periodic health examinations, and, backed by some of the men and the officials of the A. M. A., particularly Dr. Dodson, a group of us has gotten together and has outlined plans by which this idea could be fostered. We have heard a great deal about preventive medicine and much has been done. When one thinks of preventive medicine it is of something in the way of sanitation or the fighting of infections, purification of water supply, etc., whereas here at our very doors, so to speak, lies a field of preventive medicine that has hardly been touched and has to do with the periodic examination of presumably healthy people, the idea being to stimulate individuals to feel that they should have repeated examinations at definite and stated periods to forestall the advance of disease processes. We are all of us familiar with the fact that a great many things are picked up during the course of such simple procedures as life insurance examinations, when some such thing as hypertension or glycosuria or some other defect has been noted, and the patient has been entirely unaware that such a condition existed. Now, here is a field of preventive medicine in which, it seems to us, there is great opportunity for advancement and for a real service to our patients. Furthermore, we all feel that this should be an intimate service, a service that should be performed by the family doctor or general practitioner rather than by a specialist in any particular line. It is not only the matter of detecting the early stages of disease processes, but it branches out into a field of advice directed towards insuring optimal health, towards recommendations as to diet, as to exercise, as to mode of life, as to kind of occupation, and also kind of amusement if you will, all of which will tend towards the prolongation of life. These are forces which we all recognize as being vital, however much they are not being taken advantage of by

\*Address given at Diamond Jubilee Anniversary of Iowa State Medical Society, Des Moines, Iowa, May 12, 13, 14, 1926.

the average practitioner who is interested and perhaps over-busy in the treatment of actual disease.

I have said that in our judgment this is something that should be done by the family doctor. There is much to recommend this view. The direct contact, the intimate relationship, the individualization of such a service, are factors which make such an examination of great value. Of course, this presupposes that the family physician should be competent to render such service. If this field of preventive medicine is to be occupied, it must be taken up and performed by men who are competent. In the case of a presumably healthy individual who has no complaint, who presents himself solely for an examination to be sure that his physical condition is normal, such an examination without a lead or suggestion as to possible pathology, requires critical judgment to detect the initial stages of disease. This should not be done by clinics in the ordinary sense of the word, or rather let me say by health institutes. A health institute to which the individual perhaps subscribes at so much per year and has a periodic examination of the urine or a physical examination made, loses much of the value that may be had by this work and loses all of the personal or individual service that a family physician can give. Furthermore, we all realize that the impersonal physical examination and an impersonal report written by some one who has not perhaps seen the patient, is of very little value and oft-times is the beginning of a neurosis which is very difficult to counteract.

The A. M. A. has published the little manual I show you. It is one of many manuals on much the same subject that have been presented. However, this is a good manual and it contains suggestions as to how such an examination should be carried out and also suggestions as to the sort of prescriptions that should be given a patient. In addition there are health weight tables and some suggestions as to different physical exercise. In it is to be found a copy of a blank examination form that has been recommended. This form is nothing more than a matter of convenience. It contains all the essential features that should be gone over in making such an examination. The first part of it is supposed to be filled in by the applicant himself as to his family and occupational relationships, as to his former illnesses, customary exercise, etc. The reverse side is the one that is designed to be filled in by the examining physician, following

which it may be filed away for further reference. Such an examination would fail of its purpose if some advice growing out of the findings should not be given the applicant. Therefore this would seem to be an essential feature not to be neglected, also some word as to what the individual can do towards a better physical existence should accompany and follow the examination.

There has been some talk about putting this matter before the people at large in rather a broad way, going before civic organizations and impressing upon them the desirability of such periodic examinations. It would seem to me and to many of us that it would be much better if each man in his own practice would gradually develop an idea among his clientele that such examination should be performed, then there would be a gradual development of the thought which would ultimately work towards a better end.

There is no essential difference between a periodic health examination and any other efficient, competent physical examination. The only difference is that it probably is more difficult to carry out in the sense that you should be more critical as to findings.

(Applicant for examination is presented.)

This applicant, one of your own members who has consented to present himself for such an examination, has filled out the blank that has been proposed. There is nothing of particular interest here: "Age forty, a physician, conditions of work are satisfactory". We as physicians should recognize the fact that a great deal can be done towards adapting the lives of people toward less exacting conditions. Ofttimes it is a simple thing to do, a matter of a change of occupation, exercise, etc. There has been no serious illness in the history of this case. He gets a moderate amount of exercise. His weight is 139 pounds, and it is stated here that his usual weight is 145 pounds, so that there has been an apparent loss of weight. That is a matter which should receive your attention. His height is five feet ten inches, weight 139, and on consulting the table here one finds that his weight should be in the neighborhood of 160 pounds. Therefore he is definitely underweight, perhaps fifteen pounds. Blood-pressure, s. 117, d. 84.

In the privacy of your own office this examination should be made with the applicant stripped. There are many points that go unobserved under other conditions; for instance, hernia, flatfoot,



or a poor attitude in standing. It would be my desire to have an examining table, there should be charts, scales and blood-pressure apparatus. You should have perhaps nose and throat instruments in order that you may look in the throat, but on the whole the apparatus that is needed is simply that which each general practitioner has in his own office.

We note in this case that the subject is tall and rather thin, that his hands are cold and clammy. I think the Doctor is perhaps more excited than I am at being here; if not, something is driving him to some vasomotor change as represented by cold, clammy, sweaty hands, a situation we see so frequently among people we recognize as having an effort syndrome. His general appearance is quite normal. A definite goiter is present, there is a mass that is quite large on the right side; he states that he has noted there has been some enlargement present for six years.

In these examinations one should, of course, search for possible sources of infection. We note that his throat is quite normal, that the tonsils are definitely present and seem quite normal. In the case of the teeth, there is a possible source of infection there which should be excluded by proper x-ray examination. One feels that the cervical glands are just palpable, the axillary glands are palpable.

Without going into great detail, but reviewing the findings in a suggestive way, here is a man who gives us a lead. Here is one point we pick up on examination: Although he complains of nothing, being a healthy individual carrying on his occupation, yet we see that he has a goiter, we see that he has much filling in the teeth, we see that his hands are clammy, cold, sweaty. Therefore we go ahead with those findings in mind and search for a possible cause of these manifestations. In examining the heart, its left border is best determined by palpation, and we are very much interested, in view of what has been found here, in accurately determining the position of the apex beat. On palpation we can feel that it is well within the normal range. On auscultation one hears normal heart tones. The blood-pressure is low, as has been indicated.

A general examination of this kind should be conducted to the final conclusion. The lungs and abdomen should be gone over carefully, the reflexes should be noted. It is an excellent thing to give such patients a functional heart test; the hopping test is as good as any, and certainly far better than any mechanical contrivance that we know of in giving us an accurate idea of cardiac efficiency.

After such an examination as that, our findings should be written up, the positive findings only to be written on the blank. Here are the things we note in this subject: He has an adenomatous goiter, his teeth are possibly a source of infection, he has lost weight. We note that he shows some vasomotor disturbances as though he was to some extent being driven. Then the obvious thing to do is to suggest that something be done about it, that as a matter of record if for no other reason the metabolic rate should be taken, x-rays of the teeth are in order, possibly it might be well to have a good nose and throat man go over him to be sure to eliminate infection in that regard. In such a case as this you would debate the advisability of some treatment. Here is a man, presumably healthy, he has no complaint. You find that he has disability to some extent, and if there is anything to be done about it you ought to see that he is put on the right road, and if nothing can be done about it a record at least should be kept for future reference.

---

## DISEASES OF THE THYROID GLAND— MEDICAL CLINIC\*

---

CHARLES ADDISON ELLIOTT, M.D.

Professor of Internal Medicine, Northwestern University Medical School, Chicago

Addison C. Page, M.D., Des Moines,  
Chairman of Clinic

We have just looked over a number of patients that have been presented for demonstration, cases that I have not had much time to study but in which I have become very much interested. I must of necessity pass over the patients rather superficially, and as far as an accurate diagnosis of these cases is concerned I would not claim anything of that kind. I can do nothing more than to use the phenomena that they present as illustrative of some conditions that I would like to talk to you about.

The goiter problem is one that presents some very interesting, practical and important points. In the past few years new developments have taken place in such a way that there is an educational problem presented, in the sense that some of us at least who have had extensive opportunity of studying goiter patients have found certain things to be true that we did not realize before, and feel that these clinical truths should be disseminated among the medical profession. This

\*Clinical Address at Diamond Jubilee Anniversary of Iowa State Medical Society, Des Moines, Iowa, May 12, 13, 14, 1926.

applies in two and perhaps three particulars, and I will pause for a moment to emphasize these three factors:

1. We should have a proper and practical classification of the clinical type of hyperthyroidism, one that we can use at the bedside.

2. I would like to draw attention to the use and abuse of iodine in the treatment of hyperthyroidism, and,

3. To present to you later a means of treatment of severe hyperthyroidism which shows as good results as are to be obtained in any other field of medicine dealing with equally sick patients.

*Classification*—Many of us do not think about the thyroid gland sufficiently to realize that it is an important functioning organ of the normal individual, it does something for him. If you analyze the way a normal individual reacts, you will realize that many of those reactions, physiological, emotional, etc., are due at least in part to the thyroid gland. Undoubtedly other forces are at work, but the thyroid gland, we know, is one organ that has much to do with such things as, for instance, emotion, it has to do with the "whipping up" processes of the body to do the thing that is difficult to do or the thing which you cannot just quite do. For instance, many of us who were working on the examining boards in war time had opportunity to observe men who were taken out of lowly positions in life to be made soldiers. These men were not soldiers, they had drifted into being butcher boys, delivery clerks, and such occupations, by natural gravity so to speak—they were fit for that sort of thing. But the government comes along and takes them for the purpose of making them do the thing they cannot do. They were not slackers, they wanted to do what other men do, therefore they were "whipping themselves up" by physiological processes to do the thing that they could not well do, as the result of which they developed symptoms suggestive of thyroid overactivity, producing the so-called effort syndrome. We see that all through life; for instance, among doctors who are striving to do better work, and are perhaps trying to do a thing that is difficult or impossible for them to do because of their bodily makeup. Thereafter symptoms develop, as nervousness, tremor, tachycardia, sweating, etc. To my mind these suggest thyroid influence. The thyroid reacts to environment sufficiently to produce symptoms. In our office practice we find that perhaps a good half of our patients are functional cases, and of these cases a large proportion belong to this effort syndrome group, a condition which

should be recognized. The treatment is not directed towards the thyroid—the thyroid is functioning as well as it possibly can. Our treatment should be mainly directed towards relieving that individual from the whipping up process. They should be relieved in their ordinary life, readjustment should be made so that they will not be automatically driven by such activity.

Therefore there is a large group of thyroid cases, functional cases if you will, that deserve treatment, but that treatment is not directed primarily against the thyroid gland, it is directed against their environment.

Then again, we think of infection as producing symptoms. We have in mind a definite classification of symptoms that are due to different infections, for instance, pulmonary tuberculosis. We recognize fever, tachycardia, sweating, loss of weight, etc., as being characteristic of tuberculous infection. I want to state, in a dramatic sort of way perhaps, that those symptoms are not due to bacterial invasion, but are caused by the reaction of the individual to bacterial invasion. Now, in this reaction many of the findings that are produced are undoubtedly due to ductless gland activity, in part the thyroid. Just think of the parallelism here: There is fever, tachycardia, sweats, vasomotor disturbances, loss of weight, increase in metabolic rate, etc., symptoms characteristic of thyroid activity and yet we speak of them also as occurring in infections and as being typical of infection. We as doctors in office practice and at the hospital see such typical symptoms of hyperthyroidism produced by infection, but we should be wise and recognize in those cases that the thyroid symptoms are not primarily due to hyperthyroidism, but are due to the way the thyroid is acting, and the body reacting, to bacterial invasion. So that here is an entire group of hyperthyroid cases in which the symptoms are ultimately due to infection perhaps, but immediately due to thyroid reaction in which the treatment should not be directed towards the thyroid, but should be directed towards the primary cause of this thyroid activity. I am sure, as I see these patients, that doctors generally are oftentimes overlooking the underlying infection that is producing the hyperthyroidism and are concentrating their attention upon the thyroid gland, and not, therefore, treating these patients on the infection basis in the way they should be treated. In other words, they are treated as thyroid patients, whereas the treatment should be directed against the infection.

That infection has a great deal to do with hyperthyroidism was first called to my attention



following the influenza epidemic. At that time there was a tremendous increase in the exophthalmic type of goiter. Since that time we have actually seen in a rather small medical clinic the development of the exophthalmic type of goiter immediately under our eyes during convalescence from acute infection such as tonsillitis or bronchial pneumonia. Here is a hyperthyroidism that develops in the wake of an infection. The more you go into the history of the exophthalmic type of cases the more you must be impressed. Ofttimes the symptoms date back to an infection of three or four months previous—a cold perhaps of a week's duration that has led on finally to symptoms which drive him to the physician, and these symptoms are then recognized as being those of hyperthyroidism.

Just a word in regard to classification. Here are two thyroid groups that are not ordinarily classified as hyperthyroidism, but I venture to say that they represent fully half of the patients that come to doctors with thyroid symptoms: Those due to effort syndrome, and those due to infections.

Taking the goiters as they are, a simple classification of clinical types is to be desired.

First, one ought to recognize endemic goiter. Here is an iodine deficiency disease that starts in childhood and which is not cured by iodine. It is prevented by iodine, but not cured. It can be prevented by feeding sufficient iodine during the course of the child's development.

Second, colloid goiter enlargement of the thyroid associated with certain conditions as the menstrual period, with the menopause, with child-bearing, etc.

Third, non-toxic goiter. We ought to recognize a large group of this class. These patients are normal, the thyroid gland is acting normally although the goiter may be large.

Fourth, then the toxic adenomas should be recognized, especially the so-called thyrotoxic group of adenomas which is not being recognized by doctors sufficiently. Here is a gradual development of hyperthyroidism, it is chronic, it is slow, in contrast to the exophthalmic goiter type which comes on following an infection and progresses and develops uniformly. Whether there is a fundamental difference between these two groups or not is not known. There is no question but that there is an advantage in recognizing a thyroidism that gradually sneaks up on the individual and produces cardiovascular changes. It is then a matter of judgment as to when that thyroid should be attacked. But the acute goiter, the hyperplastic goiter, whether fundamentally dif-

ferent or not, is clinically different; it is progressive, it develops rapidly, permanent tissue damage occurs within a few months that will be detectable always whether disability exists or not.

Fifth. So here is a type of exophthalmic goiter that develops progressively, that leads to invalidism, oftentimes leads to death, but, on the other hand there are a few patients who run a mild course and the disease self-limited; but one cannot at the early stage determine just what the outcome in that individual is going to be—whether it is going to be death or recovery. However, almost always it is a progressive thing and these patients are always liable to remissions. Therefore they are never safe. Now, if we are going to stop this progressive disease early, before permanent visceral damage has occurred, it should be recognized early. Unfortunately it goes by a bad name, it would be a whole lot better to speak of this condition as acute hyperthyroidism and the other as chronic hyperthyroidism, than to give it the name of a symptom, and, furthermore, of a late symptom, is an error. True exophthalmos is a late manifestation. If you wait for exophthalmos, this itself is an evidence of permanent tissue damage to the recti muscles of the eye and therefore is late and more or less permanent. Therefore the early symptoms should be clearly borne in mind, remembering that the manifestations by which the disease is more frequently better recognized are late symptoms. One should make an early diagnosis of exophthalmic goiter, and hyperthyroidism and exophthalmic goiter should be stopped when recognized. That does not apply to the toxic adenomatous group in which hyperthyroidism should be stopped when permanent tissue damage is beginning to occur. Here, however, is a disease that is progressive, with remissions and exacerbations, and in which one cannot tell the outcome. It can usually be controlled and stopped, and therefore should be stopped before permanent damage occurs.

Sixth, the thyrocardiac group. We will not go into discussion of the symptoms, but here is a type of the toxic adenomatous group that is not recognized by the average practitioner. This is a heart case pure and simple. That patient goes to the doctor complaining of cardiac symptoms—dyspnea, edema, palpitation, etc., all cardiac manifestations. He does not complain of symptoms indicative of hyperthyroidism, and yet here is a thyroid heart that is not recognized as such. That patient is being given digitalis, is being put to bed at rest, he goes from bad to worse and finally dies in broken compensation. This is a myo-

cardiac case, with heart symptoms, which is curable by controlling the hyperthyroidism. In other words, here is a heart case that is curable by sub-total thyroidectomy—a heart case curable by operation—and yet many of these patients go from one doctor to another, men who perhaps have not had the opportunity of seeing enough of these patients to recognize them as thyroid hearts rather than hearts due to some other type of degeneration. In these cases the signs are cardiac, but there is an increased metabolic rate. In the case of any patient with auricular fibrillation it should occur to the doctor to wonder if it is possible that this heart case with fibrillation could not be a hyperthyroidism, because fibrillation is so characteristic of hyperthyroidism that that thought at least ought always to come into the mind of the examiner when this symptom is manifest. Of course, fibrillation occurs in other conditions, but it is so characteristic of the hyperthyroid heart that you should always at least give it this thought. These patients are mentally and physically different from the person that is all lit up with hyperthyroidism, these chronic heart cases in which with the years the thyroid intoxication has produced a myocardial degeneration; they are not nervous particularly, they are not sweaty, but, on the other hand, they are apt to be in a state of hebetude, skin often pigmented, they have increased cardiac rate, they have an old adenomatous goiter. This group should be recognized because many of these individuals are going about with a heart condition that is curable and yet the cause of the trouble goes unrecognized.

*Iodin Treatment*—Treatment with iodine is an extremely important. Iodine has been used for centuries in the treatment of hyperthyroidism. Men have used it all along the line, some of them have seen benefit and some others have seen quite the opposite result. Great interest has been directed towards iodine in the control of hyperthyroidism during the past few years, first by Marine and later by Henry Plummer. However, there is no question but what we are now seeing a new group of hyperthyroid cases—those cases that are induced by iodine. Moreover, this group is composed of quite a considerable number of patients. I think the real situation is this: That there has been a great propaganda carried on in the press and among lay people, until now it is pretty well known that if a person has goiter he should use iodine for it, and therefore every lay person with a goiter is apt to take iodine. That is all right for the growing child without a goiter, but it is not all right for

anybody with a goiter. A patient who has an adenomatous goiter is very liable to be made much worse by the administration of iodine. It does not take a great amount of iodine to set up a hyperthyroidism. Cases of hyperthyroidism produced by iodine are progressive, they go on just as an exophthalmic one goes on. Stopping the administration of iodine does not check the disease, it goes on. Therefore here is practically a new group that has developed since we have been feeding people with iodine. Isolated cases of this kind were undoubtedly seen previously, but now there is quite a large group of hyperthyroid cases induced by the administration of iodine which are being recognized.

In the treatment of goiter, iodine ought never to be given save under competent medical advice, because otherwise there may develop the very thing that has been noted. Furthermore, on account of the temporary control that iodine has on the hyperthyroid state, these patients are benefited, but not cured. They are benefited so that at the end of two or three weeks they feel in health, in comfort and peace, their symptoms have disappeared, and they feel that that is a cure, but we now know that the relief is only a remission. But while the period is short, it is of tremendous value in detoxicating patients in preparation for operation. There is a period of remission of symptoms during which thyroidectomy may be done with very little danger, no more danger than would be a similar sized operation anywhere else in the body, because the danger incident to operative interference with the thyroid gland is that associated with thyroid crisis, and that, under iodine control, is minimized. So iodine ought never to be administered save in preparation for a thyroidectomy. It is not a cure. There is great danger of the effects of iodine masking the symptoms, he feels better, but he does not realize that the relief is only temporary. If you are dealing with a severe case of hyperthyroidism, and that is what we are talking about, iodine ought never to be given these patients save in preparation for operation.

Iodine ought to be continued following sub-total thyroidectomy because hyperthyroidism is not apt to occur in the presence of a satisfactory amount of iodine.

Recently we have recalled for examination seventy-four patients that were operated on one to six years ago, and some interesting information was obtained. Iodine has only been used the last two or three years and was thought to be of benefit only in the exophthalmic type, but we were very much surprised when we actually an-



alyzed the figures and found that we get almost the same benefit in the adenomatous goiters that we do in the exophthalmic type.

**Case I.** Miss A. A., telephone operator, single, age twenty-three.

Complains of tachycardia, slight weight loss, occasional nervousness, enlargement of the neck, tiredness, burning at urination.

Past History: Enlargement noted at eight, eyes protruded. She had some chiropractic treatment and was relieved. Tonsillectomy was done at Iowa City and she was advised to have thyroidectomy.

Here is a young lady who when quite young developed thyroid trouble. The chances are that the condition was due to an iodine deficiency, and she has had thyroid enlargement continually over this period. She has been nervous at times, she has had some rapidity of the heart action. At the present time the thyroid gland is not markedly enlarged. It is soft, there is no bruit over it. There is some tremor, but it is a kind of nervousness that does not impress me very much as being of the thyroid type. For example, her other hand, at rest, is perfectly still. The heart shows no hypertrophy. On careful examination the apex is found to be well within the normal area.

The situation here is important and difficult. Here is a young woman who has had iodine, she has had x-ray and other forms of treatment including tonsillectomy. We know that all those things may influence hyperthyroidism. It is difficult in the present situation to say that she has an exophthalmic type, under iodine control for instance, or whether she has not really an "effort syndrome" in an individual who has had a colloid goiter since childhood. My impression is that it is the latter more than it is the former, it seems to me that if severe hyperthyroidism had existed over all these years it would produce permanent visceral damage which one could detect—as a matter of fact one ought to be able to detect this in fully half of the cases, and still she shows none. I think there is really no exophthalmos here. This is a case for good judgment. It would certainly be a crime to operate on her to remove the thyroid at the present time—it would be a mistake I am sure to do that. Readjustments at home, perhaps continuing the iodine now that it has been started, perhaps some x-ray treatments, would control it, as it is a mild case. But under any circumstances here is a young woman with a thyroid gland that shows evidence of hyperactivity. She ought to be under competent and very sane medical advice. She ought not to be subjected to immediate thyroidectomy or other

serious procedures. She should be encouraged, rather than be discouraged by being put to bed and made to feel that she is an invalid.

**Case II.** Mr. A. B. L., married, age forty-six, occupation groceryman. He had a herniotomy one year ago. In December last was told he had flu, which was followed by palpitation, loss of thirty-five pounds, nervousness, tachycardia, nausea after eating, etc. On the twelfth of February when he came under observation his metabolic rate was, pulse 45; the 20th of February the metabolic rate was pulse 42; the 28th of March, pulse 35. The patient has had some x-ray treatments and iodine. He had iodine two weeks at the start and then occasionally since then. The basal metabolic rate yesterday was pulse 33.

The thing that interests me is that the patient had a hyperthyroidism that came on immediately following an infection; he had flu in December and immediately following that the thyroid gland was set off apparently to hyperactivity. The history reveals the most characteristic evidence of the exophthalmic type of acute goiter, where the whole thyroid gland is stimulated to overactivity, in contrast to the chronic type of thyroid in which one adenomatous portion may be stimulated to activity. In December he had flu followed by an infection, and he has gone on and is not well. He has had various types of treatment including iodine, which would temporarily control the symptoms of that type of goiter, which leaves him in bad condition because we know that iodine is not a cure, it simply brings about a temporary control of symptoms. It might have been that the period of remission could have been used for some sort of interference.

The goiter cases referred to us in a general hospital are usually of a severe type and my experience has been with this type, therefore I am not in position to judge as to the result of x-ray treatment in the mild type of cases. But in severe hyperthyroidism I am sure that x-ray treatment is not to be recommended. In these you know that if you give iodine there will be a remission within ten days, and during that period subtotal thyroidectomy can be done with practically no danger, with less than one per cent of mortality; that under those conditions, knowing that that type of operation will stop hyperthyroidism, and realizing the necessity of stopping it, it is our judgment that such operative interference should be instituted at that time. Here is a man who also has gross oral infection, teeth in very bad shape. That means something. Our attitude about focal infection is this: That as a matter of good health insurance focal infections should be taken care of, and with the hope that it may have something

to do with the general symptoms that the patient complains of. We do not hope to cure hyperthyroidism by removing infected teeth.

**Case III.** Mrs. J. W. B., age forty, housewife.

This lady has had what is manifestly an adenomatous type of goiter of long duration. Recently there has been an increase of toxic symptoms, some nervousness, increased metabolic rate, tachycardia, etc. But that is not the thing I am interested in. On physical examination we find that the apex beat of the heart is out an inch and one-half to the left. Here is something that is creeping in on her. In all probability there has been a low grade hyperthyroidism for years, producing cardiovascular damage. Therefore when you see that the cardiovascular damage is going to be of importance as far as life is concerned, then the hyperthyroidism ought to be controlled even though it is not particularly acute, even though it is of low grade, to stop the cardiac manifestations.

#### TREATMENT OF SEVERE HYPERTHYROIDISM

In the treatment of hyperthyroidism, how should we proceed? The question is not yet settled. There is a lot to be learned about it. But, even so, at the present time the treatment of severe hyperthyroidism is one of the good things you can do in medicine. I think that today the situation in this respect is much the same as it was in regard to appendicitis thirty years ago. In those days operation was occasionally done for appendicitis, but it was always a late operation. Today even the boy of seventeen knows that if a diagnosis of appendicitis is made on him he should have an immediate operation. We do not know the etiological factor back of hyperthyroidism; we only know what we can do with it. The important thing is to stop it when severe. Our ideas are something like this: That all cases of goiter ought to be under competent medical supervision. A left hypertrophy of the heart can develop and the patient know nothing about it. In the hands of a competent medical man this possibility would be recognized and the hyperthyroidism, even if low grade, should be stopped to prevent further damage. At the present time a sub-total thyroidectomy is a means of control. With our surgical colleagues, I have been very much interested to watch how they have dared to remove more and more of the thyroid gland. Years ago we saw severe and critical postoperative reactions. These are now almost entirely out of the picture. We finally came to the conclusion that it is not what is taken out, but what is

left behind after operation that is the thing which causes postoperative reactions. Therefore operators have increased the amount of material taken out, and during the last six months our surgeons have been doing what is known as a maximal sub-total thyroidectomy. The amount of gland left consists of two small pieces to protect the two upper parathyroids. So the objective now is to remove all the thyroid possible. As the result of this operation hyperthyroidism is stopped. By the time the patient leaves the hospital the metabolic rate ought to be normal, in two weeks the symptoms of hyperthyroidism should have disappeared. If the metabolic rate continues high and the symptoms persist, then we know that a sub-total thyroidectomy has not been done in spite of the good intention of the surgeon. Therefore a new situation arises: If in several cases we see complete results from the operation, and here is an individual patient in whom such results have not been obtained, then we are warranted in assuming that thyroid remnants that have escaped attention are still present and hyperfunctioning, so much so that a second exploratory opening for the purpose of permitting a search for thyroid remnants is in order. And during the last six months that actually has been done in three such cases. In the case of one patient a third operation was done following which the hyperthyroidism is apparently stopped.

When one succeeds in stopping the hyperthyroidism the outcome is very good, the patient gets well and there are no ill effects. The only complication we have seen is some postoperative myxedema. This is apparently a minor thing, readjustments occur, and thyroid feeding for a short time only is all that is necessary. We have had no serious trouble with tetany. Of course we have a specific hormone for both these conditions and therefore face the condition with greater ease of mind.

Finally, it seems to me this is an educational matter. An individual with goiter ought to see a doctor who understands hyperthyroidism. Patients should not go on year in and year out without proper medical advice. Doctors who have been out of touch for some time with the question of the use of iodine and its abuses, do not always realize that iodine should be given under very careful observation, and that the valuable remission should be utilized for operative or other type of interference that will stop hyperthyroidism.



## THE DIAGNOSIS OF TUBERCULOUS ULCERS OF THE BOWEL\*

J. T. STRAWN, M.D. AND C. A. SONES, M.D.,  
Des Moines

In diagnosing tuberculous enteritis, the first important point is to establish the diagnosis of pulmonary tuberculosis. This is especially true in the adult. Nearly all adults who have tuberculosis of the intestine, develop it as a complication of the same lesion in the chest. A. N. Besesen, Jr.,<sup>1</sup> quotes from literature, that 95 to 97 per cent of tuberculous enteritis in the adult is secondary to tuberculosis of the lung, and the postmortem reports on patients dying of pulmonary tuberculosis are generally conceded to show intestinal ulceration in 60 to 90 per cent. Such statistics justify the statement of J. E. Pritchard<sup>2</sup> when he says, "Definite, especially active, pulmonary tuberculosis adds immense weight to every symptom and sign of intestinal tuberculosis".

The second important point is the careful consideration, and evaluation of the symptomatology.

While a few cases, apparently, develop tuberculous enteritis, with very little or no symptoms, the majority of cases manifest a fairly definite line of symptoms, which, in their relative order of importance are as follows: abdominal pain, diarrhea, constipation, alternation of diarrhea and constipation, nausea, vomiting, general digestive disturbance, and general systemic disturbance.

Recently a very comprehensive study of the value of these various symptoms has been made by R. J. Erickson<sup>3</sup> and also by J. E. Pritchard.<sup>2</sup>

From Erickson's observations, the pain which is generally conceded to be the most decisive symptom, is manifested in a primary and prominent manner in about 40 per cent of the cases, and late in the disease, is present in practically all cases. The pain is described as crampy or colicky-like in about one-half of the cases, in others it is spoken of as a general abdominal soreness, deep seated aching, or vague distress. It is most frequently located in the right lower quadrant. It is often diffuse, and may be in the upper abdomen, in the lower abdomen, around the navel and rarely in the left lower quadrant.

Erickson<sup>3</sup> notes that with the pain as a leading symptom, many complain of associated symptoms. They occur in the following order of frequency: diarrhea, general digestive disturbance, nausea, constipation, general systemic disturbance, and alternating constipation and diarrhea.

The diarrhea is a prominent and leading symptom in about 36 per cent of the cases. It is of secondary importance in many others. It often develops as a serious late manifestation but its severity does not appear to give an exact idea of the amount of intestinal involvement. Dr. Archibald<sup>4</sup> believes that diarrhea is indicative of ulceration in the large bowel, and that constipation is common to ulceration of the small bowel. This rule I believe has been quite generally accepted. Erickson,<sup>3</sup> however, finds too many exceptions to it and too many factors influencing the diarrhea, as associated catarrhal involvement, effect on innervation, etc., to consider it of much value. Patients who have diarrhea as the leading symptom, usually have associated with it other manifestations (previously mentioned) common to tuberculous enteritis.

Constipation is regarded as an early distressing sign in about 28 per cent of the cases. However, it is so common in general and especially so common among sick people that an evaluation as a sign of intestinal tuberculosis is almost impossible, except, perhaps in those of the more rare hypertrophic type in which the constipation becomes an obstipation or obstruction, with associated visible peristalsis.

Diarrhea, alternating with constipation, a symptom long known to be associated with intestinal tuberculosis, was found by Erickson<sup>3</sup> to be present in 12 per cent of his cases.

Nausea was present in 52 per cent. It was severe in many but slight in the most of his cases. He did not find it alone as an initial symptom.

Vomiting occurs in most of the cases having nausea. It is present in about 35 per cent of the cases.

General digestive disturbances as sour stomach, distress after eating, acid eructations, water brash, heart burn, fullness after eating a few bites, early satiety, "bilious attacks", and slight jaundice are present as early symptoms in about 45 per cent of the cases.

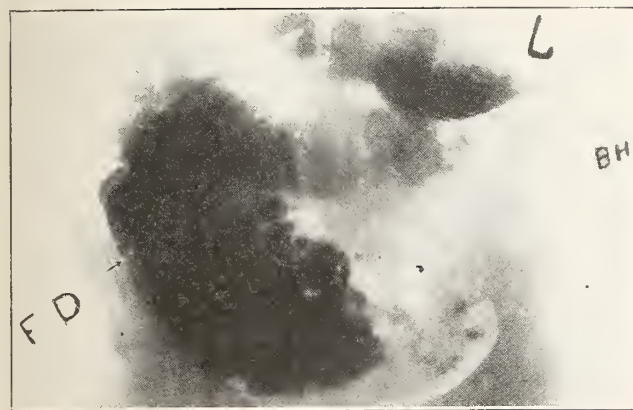
General systemic disturbances as fever out of proportion to the pulmonary symptoms and findings is observed in about 22 per cent of the cases, and general nervousness regarded by many as an important early symptom was found by Erickson<sup>3</sup> to be an initial symptom in 15 per cent of his cases.

While such observations and statistics give certain values, the value is obscured by the fact that other toxic conditions and functional disturbances may give rise to many of these symptoms, or even simulate the entire group. Practically all may be simulated even by the toxic and

\*Read before the Austin Flint-Cedar Medical Society, Fort Dodge, Iowa, July 13, 1926.

functional disturbances found associated with pulmonary tuberculosis itself, in which there are no intestinal ulcerations. This means that the symptoms alone are insufficient but it is quite essential to evaluate them according to their true worth that they may be correctly placed on the positive side with other findings in finally establishing a correct diagnosis.

In positive tuberculous enteritis these symptoms usually stand out more definitely by their



Roentgen findings four hours after the barium meal. Note hypermotility shown by barium head at splenic flexure (B. H.), "filling-defect" (F. D.) at the cecum.

multiplicity and severity and duration than do those of negative cases. The positive cases are twice as likely to have a definite onset. Pain is a much more prominent symptom during the illness of the positive case and when present at the onset it is much more likely to be sharp and decisive in character and more likely to be localized in the right lower quadrant.

In percentages, the value of the physical examination in making a diagnosis is very low. But in certain cases the cecal thickening or palpable mass, most frequently found in the right lower quadrant, or the hyperperistalsis visible in those approaching obstruction may be definite aids to safe diagnostic conclusion. Localized abdominal rigidity is suggestive of a local peritonitis. Tenderness while of some aid is often a misleading abdominal sign and it must not be forgotten that rectal fistulæ are often tuberculous and therefore speaks for themselves.

By the proctoscope and sigmoidoscope one is able to pick up the diagnosis of those cases with involvement of this segment of the bowel quite definitely. However, they represent only a small per cent of the cases and are found as a rule late in the disease as it was with the last positive case I examined by this method. The man was critically ill, and died in about one month after I first saw him.

In the diagnosis of tuberculous enteritis there is very little service to be had from the clinical laboratory. The examination for tubercle bacilli in the feces is hardly worth the effort. If found, there is no proof that they were not swallowed. According to Bessesen<sup>1</sup> 90 per cent of all cases of pulmonary tuberculosis with positive sputum have tubercle bacilli in their stools. Occult blood in the stool when the patient is on a meat free diet has its significance.

Tuberculin as a diagnostic aid has been regarded as of little or no value by the majority of writers on the subject of intestinal tuberculosis.

It is generally acknowledged, from the percentages of recognized intestinal tuberculosis, coming to operation or autopsy, that the evidence obtained by the clinical history, physical examination and clinical laboratory, are insufficient, and we are in serious need of collateral help. This is especially true in the early diagnosis. Success in the treatment demands an early diagnosis if at all possible. Our more active workers in tuberculosis, as Lawranson Brown,<sup>5</sup> point out the early symptoms, as extreme nervousness, constipation, slight dyspepsia, a feeling of discomfort after meals, gas, failure to gain weight under suitable conditions, a general "not doing well" for which no other special reason can be found, and insists that for satisfactory treatment a diagnosis at this stage must be made.



Roentgen findings six hours after barium meal. Barium head is in sigmoid flexure. (F. D.) "Filling-defect" in cecum and ascending colon.

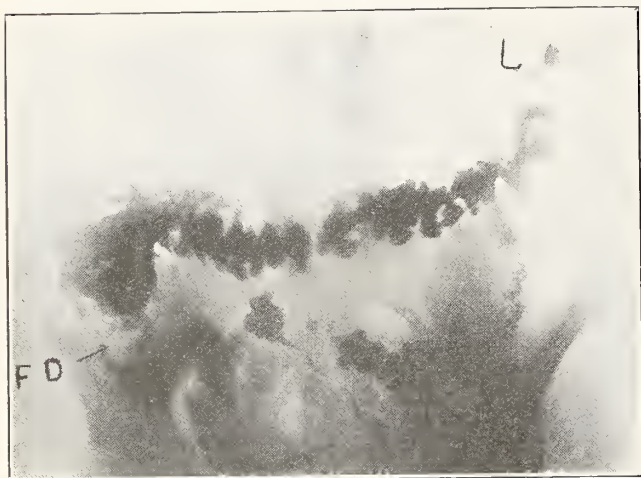
The third important point in the diagnosis of intestinal tuberculosis is the evidence obtained by a careful x-ray examination.

In 1911 Stierlin<sup>6</sup> pointed out the value of cecal and general intestinal hypermotility as a sign of tuberculosis of the cecum and colon and drew



attention to the significance of portions of the colon remaining partially filled, the fine marbeling, the long drawn out shadows, irregular contour, absence of haustral segments and rigid cylindrical appearing forms.

In 1917 Dr. A. H. Pirie<sup>7</sup> after having missed the diagnosis on several cases of cecal tuberculosis, because the cecum was not filled and



Roentgen findings eight hours after barium meal shows similar "filling-defect" (F. D.) in cecum.

therefore did not permit of its study, finally determined that the very absence of the filling was the essential factor in its diagnosis. A well filled cecum he found to be always normal. Carman,<sup>8</sup> Case, and others have studied this phase of the subject. The best work I have read along this line, however, is that of Brown and Sampson.<sup>9</sup>

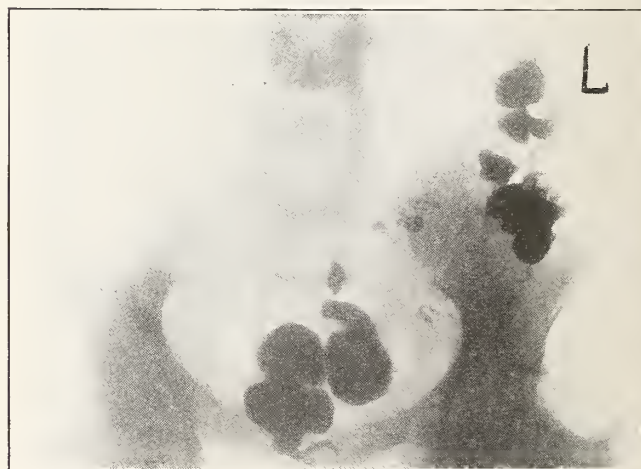
Their technique on method of examination is as follows: The barium meal consists of four ounces of barium sulphate with two ounces of malted milk to which 16 ounces of water is added. The patient is required to abstain from laxatives for at least thirty-six hours previous to the taking of the barium meal. After giving the barium meal the patient is allowed to eat his usual breakfast. He does not take anything more to eat until observed under the x-ray seven hours later, at which time a plate of the colon is taken. The patient is then examined under the fluoroscope every one-half hour or forty-five minutes for two or three hours and plates may be taken at the corresponding periods. The patient is allowed to eat after the first examination. He is again examined at the end of the twenty-four hours from the time the barium meal was taken. A barium enema is given one or two days later. The enema is given without previous catharsis. The only preparation they use is a cleansing enema of soap and water. They select the morning for the barium enema because the cecum is

normally usually empty at that time. The enema is given in the prone position with 12 to 18 inches pressure. A plate is made when the colon is filled, but care is taken to avoid over-filling. If over-filled the view of the cecum may be obscured by the barium passing into the small bowel through an incompetent ileocecal valve.

The basic principle upon which the x-ray evidence of intestinal ulceration rests is that ulcerations alter the movements of the affected part and produce "filling defects" by spasticity and infiltration. This holds true even in duodenal ulcers.

According to Brown and Sampson, the chief effect produced by ulcer in the colon (especially the cecum) is hyperactivity which causes partial or complete elimination of the barium from the segment involved. Hyperactivity may not be limited to one segment but when initiated may travel some distance analward. Complete evacuation in some cases of cecal tuberculosis occur in fifteen to twenty-four hours. This is spoken of as generalized hypermotility.

Upon close fluoroscopic observation constant emptying of the cecum, according to Brown and Sampson,<sup>9</sup> can be detected, the barium appearing to pass from the ileum and cecum to the ascending colon, the cecum remaining unfilled or only filling partially, soon to be discharged. A change in the barium content of the cecum or colon is rarely observed in normal cases. Mass move-



Roentgen findings twenty-four hours after barium meal, showing bowel entirely empty proximal to the splenic flexure.

ments which Brown and Sampson frequently see in tuberculous colitis are seldom observed in normal cases.

While haustra are occasionally present in the diseased area, they are rarely seen in the proximal portion of the colon when tuberculosis is present. This is due to spasm and hypermotility,

which produce the same deformities often spoken of as "filling defects".

Brown and Sampson therefor believe that a failure for the cecum to fill, or failure to fill completely at any period of the examination is indicative of ulceration.

In regard to the small bowel the same alteration of movement takes place, but here the normal movement is so rapid that the hyperperistalsis is hard to observe. So that the principal phenomenon useful in diagnosing the lesion in the small bowel is that resulting from spasm and infiltration. The spasm is believed to cause temporary stasis in the segment just proximal to it. This produces pronounced and persistent segmentation and finally dilatation in this segment of the small bowel, and the longer the delay persists, obviously the greater is the probability that a lesion is there.

These x-ray signs do not in themselves establish the nature of the ulceration, but are common to any form of intestinal ulceration. However, the predilection for the ileocecal area in tuberculosis, establishes the nature of the ulceration in the majority of cases. According to Schwatt and Steinbach<sup>10</sup> as well as Brown<sup>9</sup> and others, in 87 per cent of the cases the lower ileum or cecum is involved. In simple ulcerative colitis, as well as other common types of intestinal ulceration, it is usually the lower colon that is involved, especially early in the disease.

The location of the ulceration by the x-ray in a tuberculous subject with the characteristic clinical symptomatology is usually sufficient upon which to make a fairly accurate diagnosis.

Brown and Sampson<sup>9</sup> examined sixty-two cases that came to operation or autopsy, upon which they had made a positive diagnosis of intestinal tuberculosis. A correct diagnosis was proven in all of the sixty-two. They also examined forty-four cases with suspicious symptoms, in which the x-ray findings were negative for intestinal ulcer, which later came to operation or autopsy. They were correct in forty-two and wrong in two cases. The two cases had tuberculous ulcers.

By way of summary I would emphasize first, the importance of establishing evidence of pulmonary tuberculosis in these cases. Second, the evaluation of the symptoms which should be compatible with and explained by those known to exist in intestinal tuberculosis. Third, the importance of an early systematic x-ray study of all suspicious cases.

While the work of Brown and Sampson, is rel-

atively new and unconfirmed, it offers hope in a much needed field.

Because of space for publication, I am submitting the roentgenogram series of only one of our cases: P. W., male, age twenty-three, single. Family history and past history negative. In 1923 and 1924 he was losing weight and strength, and in November, 1924, began to have severe abdominal pains in region of the navel, colicky-like



Roentgen findings after barium enema, showing the definite "filling-defect" in the cecum (F. D.). The remainder of the colon appearing normal.

in character. He then began losing weight more rapidly, and in December was examined by a physician who made a diagnosis of pulmonary tuberculosis. He was kept in a hospital two months. He had a characteristic fever curve but very little cough. The sputum was reported positive for tubercle bacilli. For about two months following he made a slight gain in weight, then began losing again.

We first saw him the following May. The chest showed definite x-ray findings of active tuberculosis. Together with the sharp colicky pains in the abdomen, he complained of slight nausea, distress after eating sometimes becoming severe "gas pains", located around the navel and in right lower quadrant. Constipation had been persistent for the past two years. He denied any tendency toward loose stools, or seeing mucus or blood in the feces. The physical examination revealed a rounded soft generally sensitive abdomen, the maximum points of tenderness being in the right lower quadrant. There was a strong reaction for occult blood in the stool by the



Weber test. The gastrointestinal tract was examined by the x-ray, and a diagnosis of intestinal tuberculosis was made. Because of the apparent localization of the ulcerations to the ileocecal area, this patient was operated and the distal six inches of ileum and cecum were excised. The gross and microscopical findings confirmed the diagnosis.

#### REFERENCES

1. Bessesen, A. N. Jr.: Tuberculosis of the Intestines. *Amer. Jour. Surg.*, Sept., 1924.
2. Pritchard, J. E.: Tuberculous Ulcerations of Intestines, *Can. Med. Assoc. Jour.*, Jan., 1924.
3. Erickson, R. J.: Symptoms of Intestinal Tuberculosis, *Amer. Rev. Tuberc.*, Sept., 1925.
4. Archibald: *Amer. Rev. Tuberc.*, 1917, i 449.
5. Stewart, D. A.: Tuberculosis of the Intestines—The Ulcerative Form as a Phase of Pulmonary Tuberculosis. *Can. Med., Assoc. Jour.*, Jan., 1923.
6. Stierlin: Kie radiographic in der Diagnostik der Ileozoeal Tuberkulose. *Munchen. Med. Wehnschr.*, 1911, lviii.
7. Pirie: See Blakie and Laird's article on X-ray Studies of Intestinal Tbc. *Minnesota Med.*, February, 1926.
8. Carmen, R. D.: The Roentgen Diagnosis of Diseases of Alimentary Canal. Second Edition, Philadelphia, 1921, 562.
9. Brown & Sampson: Intestinal Tuberculosis—Diagnosis and Treatment.
10. Schwatt and Steinbach: Tuberculosis of Intestine. *Amer. Rev. Tuberc.*, Sept., 1923.

### IODINE HYPERTHYROIDISM\*

ARNOLD JACKSON, M.D., Jackson Clinic,  
Madison, Wisconsin

The goiter problem is one that is daily growing in magnitude and affecting an ever increasing proportion of our population. A review of the literature of the past year and of a decade ago will at once affirm the truth of this statement. Ten years ago our medical journals contained only an occasional reference to goiter. Today it is not unusual to see several articles on this subject appearing in the same journal. The interest of not only every physician, but of the laity as well has been aroused to the importance of this problem. Towns, cities, provinces, and even states have taken up the fight to check the spread of this affliction. It is well that public interest has been aroused in this battle for unaided we physicians are unable to cope with a disease that has attacked not hundreds or thousands or even tens of thousands, but actually millions of our present or future citizens. In comparison, the percentage of our population suffering with tuberculosis and cancer is indeed small. While the loss of life is not so great, the number physically incapacitated is very large, and the economic loss to the country can scarcely be measured in dollars and cents.

It is indeed fortunate that although the great goiter belt stretches all the way across our coun-

try from Boston to Seattle, the number of persons suffering from toxic goiter is small in comparison to the total number of goiters. Small as it is, however, there is scarcely a village within this large area that does not have cases of this kind. Because of our meager understanding of this disease many of these cases have not been recognized in the past and death has been attributed to heart or kidney complications. It seems to me that goiter, more than almost any other subject in medicine, has caused confusion and misunderstanding among the profession. Indeed this is not to be wondered at, considering the confusing classifications that have appeared in the literature and that have been taught in our medical schools, when one stops to consider that much of our knowledge pertaining to the thyroid gland has come within the span of our lives. The recognition and treatment of myxedema, the work of Kocher, the father of goiter surgery, the isolation of thyroxin by Kendall, and the adaptation of the basal metabolic unit to the study of thyroid disease are developments of recent years. The splendid work of Plummer, who has led us out of the maze of diagnostic confusion, and more recently brought forth the remarkable efficacy of iodine as a preoperative measure in the treatment of exophthalmic goiter, marks one of the greatest contributions of all times to this subject. Even today, however, the busy practitioner is bewildered by the mass of scientific data, and by the controversies between our leading authorities on this subject; one school maintaining that exophthalmic goiter and toxic adenoma are a single entity while the other with no less authority and assurance affirms that they are two entirely different conditions. It will be my endeavor to affirm the latter view.

Before considering either the diagnosis or treatment of diseases of the thyroid one should have a simple but satisfactory classification. The following is suggested:

- I. Colloid.
- II. Adenomatous.
  1. Without hyperthyroidism (non-toxic).
  2. With hyperthyroidism (toxic adenoma).
  3. Iodine hyperthyroidism.
- III. Exophthalmic goiter.
- IV. Tuberculosis, malignancy, etc.

The basis for this classification was suggested by Plummer and in only one respect does mine differ. I believe that the toxic condition brought about by the injudicious use of iodine in a case of non-toxic adenoma results in the development of a syndrome that distinctly differs from the so-called toxic adenoma.

\*Presented before the Linn County Medical Society, Cedar Rapids, Iowa, October 14, 1926.

The scope of this paper does not permit a discussion of the enormous number of cases coming under the head of colloid goiter. Suffice to say that a high percentage of girls, between the ages of ten and twenty, and many boys in a majority of our most thickly populated states are afflicted with this condition. The percentage varies in different localities but runs all the way from 25 to 90 per cent. Further, I believe that this condition is increasing with every generation. Migration is also a factor. Iodine, while probably effective as a preventative, has proved disappointing to me at least in the treatment of cases already developed. I have kept accurate record on a large series of cases for several years, and am not satisfied with the results obtained. Nevertheless until more data has accumulated, I am continuing to use iodine until a more effective remedy is obtained. I am trying various preparations on different groups, and hope to have some interesting data, but this work takes years.

Regarding non-toxic adenoma, we know that this form of goiter is closely associated with the colloid type, possibly developing as a form of compensatory hypertrophy. The gland in an attempt to manufacture more iodine to meet the increasing demands of the body possibly attempts to reproduce itself. The majority of adenomas appear clinically between the ages of twelve and eighteen. They rarely if ever develop in a normal thyroid after the age of twenty-one. Contrary to a long accepted idea, they will not disappear with the use of iodine in any form, although they may diminish in size. Frequently they become substernal. The false impression that they have been cured may then result. Their surgical removal is indicated after the age of twenty-one as a protective measure against the development of hyperthyroidism with the resulting damage to the cardio-renal-vascular system, likewise to protect the heart from back pressure symptoms in cases of long standing goiter or from intrathoracic goiter. Other complications, as malignancy, are important.

Provided iodine is not administered to a person who has an adenomatous goiter, toxic symptoms never develop before the age of thirty, unless an exophthalmic goiter is superimposed. The average age at which toxic symptoms develop is forty-four. It is not generally recognized that the mode of onset is gradual and insidious, extending over a period of years, in marked contrast to the rapid onset of exophthalmic goiter, where a crisis may develop within a few weeks or months. The latter condition is characterized by gastrointestinal crisis, exophthalmos, the pres-

ence of thrills and bruits, and a low diastolic blood-pressure. In toxic adenoma there is a hypertension and a proportionately high diastolic pressure. The rapid weight loss accompanied by a ravenous appetite does not occur.

Before considering the subject of iodine hyperthyroidism it has been necessary to briefly review a few of the most significant points concerning the various types of goiter, in order to clearly differentiate this syndrome. Several factors have been important in the rapid increase of



I

II

I. A fatal case of iodine hyperthyroidism. All medical measures proved futile and the patient died three days after admittance to the hospital. The pulse rate never fell below 175 in spite of large doses of digitalis.

II. Colloid goiter as seen in majority of girls in northern states. Iodine is indicated for prevention and early treatment of this type.

this condition, namely the widespread interest in the prevention of goiter in general and the discovery of the efficacy of iodine in the treatment of exophthalmic goiter. Patent medicine concerns have reaped a harvest by following in the wake of the popular movement to check goiter by iodine. It is significant that two of these concerns which have done the most damage are still flourishing in this state, although they were exposed several years ago. The attention of your legislature should be directed to the danger of these medicines if this has not already been done. Several of my patients greatly endangered their lives from patent medicines made in your vicinity.

While the beneficial effects of iodine in the treatment of goiter have been recognized for several generations, Kocher was among the first to call attention to its dangers. Because in many respects this toxic condition resulting from the use of iodine resembles exophthalmic goiter, or Basedow's disease, Breuer called it "iodin-Basedow", and it has since generally been termed by that name. From time to time mention has been



made in the literature of the danger of using iodine promiscuously in the treatment of goiter, and occasional reports of isolated cases have appeared.

Recently I reported a series of fifty cases in which hyperthyroidism had developed in non-toxic adenomas, after the indiscriminate use of iodine. Inasmuch as this condition was always associated with adenomatous goiter, I felt that the term "iodine-Basedow" was misleading, since we recognize Basedow or Grave's disease as exophthalmic goiter. This name was derived before Plummer had separated exophthalmic goiter and toxic adenoma, and there was but one form of toxic goiter recognized. Under his classification this condition was synonymous with toxic adenoma. It seemed to me that the term "iodine hyperthyroidism" was appropriate because this was a form of hyperthyroidism truly induced by the use of iodine. Undoubtedly several of my patients would never have developed the condition we recognized as toxic adenoma, and others would not have developed it for many years had not this toxic state been created by iodine. I have never seen a case of toxic adenoma in persons less than twenty years of age, yet there were several cases of iodine hyperthyroidism in children in this series. The average age of the patients was thirty-five. It is evident then, that iodine hyperthyroidism not only occurs in much younger individuals than does toxic adenoma, but that the average age is about a decade less. The conditions are similar in that tremor, nervousness, loss of weight, tachycardia, loss of strength, and insomnia occur in each. The onset of symptoms in iodine hyperthyroidism, however, shows a marked difference. Here there is frequently a rapid onset as in exophthalmic goiter, the average duration being about two months. The patient with toxic adenoma is seldom seen by the surgeon until the symptoms have persisted for three or four years.

There is a peculiar type of nervousness associated with exophthalmic goiter, which Plummer speaks of as "purposeful movements without purpose". This symptom is of great diagnostic value and is not seen in toxic adenoma, but does occur in many of the cases of iodine hyperthyroidism. It is carried to such an extreme in severe cases of this type as to result in fatal exhaustion. There is a severe restlessness, and lack of co-ordination, often bordering on delirium.

The loss of weight is frequently rapid and severe, thus resembling exophthalmic goiter but not toxic adenoma. Two patients in this series lost more than fifty pounds in two months.

Gastrointestinal crises do not occur, nor do the patients have a ravenous appetite as in exophthalmic goiter. Rather there is a tendency to nausea. There is frequently a marked tachycardia as noted in one patient when the pulse rate was unaffected in spite of large doses of digitalis, and did not fall below 175 during the three days the patient lived. The iodine seems to render the myocardium immune to the effect of digitalis. Unlike exophthalmic goiter, thrills and bruits are not observed. The gland is irregularly enlarged,



III

IV

III. Case of multiple non-toxic adenoma before operation. The use of iodine in this type is contraindicated since it may induce iodine hyperthyroidism.

IV. Same patient two months after operation.

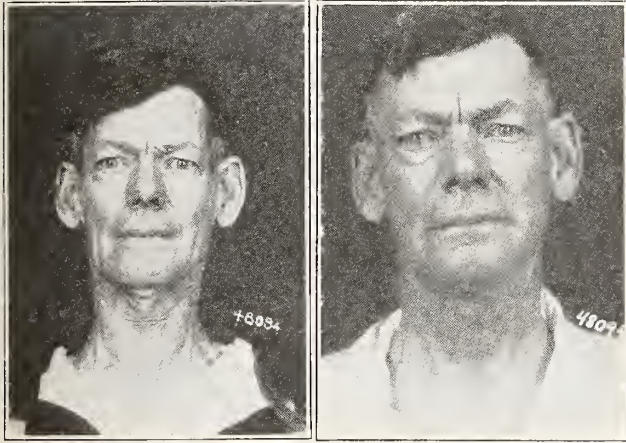
and contains multiple adenomas. The blood-pressure readings are not diagnostic as in exophthalmic goiter. The basal metabolic rate averages plus 31 per cent, which is about twenty points lower than the average for exophthalmic goiter, and about the same as for toxic adenoma.

*Etiology and Pathology*—The brilliant results obtained in the preoperative treatment of exophthalmic goiter by the use of Lugol's solution has caused this iodine preparation to be used indiscriminately. Too many physicians in their hope of bringing relief to the patient have used iodine freely, as shown by this series in which six of the cases were due to the use of Lugol's solution. Three of these cases terminated fatally. Eight patients received other iodine preparations from the same physician. In seven cases patent medicines made in Iowa were the cause of hyperthyroidism.

Even the administration of iodine to children is attended with some risk. One of the cases in this group was a girl sixteen years old who had a colloid goiter containing some small adenomas. I gave her small doses of iodine with the idea of retarding the growth of the goiter and not effecting a cure. After two months she developed mild

symptoms of hyperthyroidism and only the prompt withdrawal of iodine together with rest effected a medical cure.

The pathologic picture of iodine hyperthyroidism in no way differs from that of toxic or non-toxic adenoma, but is of course in marked contrast to that of exophthalmic goiter. The gross appearance shows the presence of various sized adenomas that may be cystic, degenerated, calcareous, fibrous or hemorrhagic. Colloid may be present in large amounts. The microscopic



V

VI

V. In cases of exophthalmic goiter as this, iodine is indicated only as a preoperative measure and not as a medicinal cure.

VI. Same patient three months after a primary thyroidectomy, having gained 38 pounds and improved in every way.

picture shows acini of variable size, lined with flat, cuboid cells, and filled with colloid. Occasional small areas of hypertrophic cells are found.

*Treatment and Prognosis*—The quantity of iodine necessary to produce toxic symptoms in persons with adenomatous goiters is variable. Some persons are able to take comparatively large doses for a long time with little apparent effect. In others even small doses are enough to initiate toxic symptoms. Prevention is more effective than treatment. If every physician made it a rule not to give iodine after the age of twenty-one for the treatment of goiter, except as a preoperative measure for the exophthalmic type, the incidence of iodine hyperthyroidism would be greatly decreased.

If the iodine has only been taken in small amounts, its prompt withdrawal together with rest and sedatives may effect a medical cure. Three of the patients in this series were thus relieved; three died in spite of all medical measures; and the rest were cured by operation. There may be considerable risk in performing thyroidectomy as there is often a severe reaction. The pulse rate is rapid and delirium may develop. One patient who failed to yield to all medical

means was operated upon but did not recover. While the convalescence is slow the end results are gratifying, every patient in this group having made an excellent recovery.

#### REFERENCES

1. Breuer, A.: Beitrag zur aetiologie der Basedow'schur Krankheit und der Thyroidismus. Wien. klin. Wchnschr., 1900, 13, 641.
2. Jackson, A. S.: Iodin as a Cause of Hyperthyroidism, with a Report of 18 Cases. Journal-Lancet, 1924, 44, 324.
3. Jackson, A. S.: Iodin Hyperthyroidism. An Analysis of Fifty Cases. Boston Medical and Surgical Journal, vol. 193, No. 25, pp. 1138-1140, Dec. 17, 1925.
4. Jackson, A. S.: Goiter and Other Diseases of the Thyroid Gland, N. Y., 1926.
5. Kocher, T.: Ueber Jodbasedow, Arch. f. klin. chir., 1910, 92, 1166; Berhandl. a. d. gesellschaft f. chir., 1910, 39, 82.
6. Plummer, H. S.: The Clinical and Pathological Relationship of Simple and Exophthalmic Goiter. Am. Jour. Med. Sci., 1913, 146, 790.

#### NEUROSYPHILIS

H. B. HENRY, M.D., Des Moines

As an introduction to the discussion of this subject I wish to give brief reports on three cases of recent date, each different and yet all typical of cases that are constantly coming under observation.

**Case No. 1.** A young man of twenty-eight years of age, accountant, resident of Des Moines, recently applied to the civil service commission for work. His drawling speech was noted by an examiner. A blood test was made along with a physical examination and the man was found to have general paresis. He had been living with his parents and neither they nor he had any knowledge of any initial infection, nor were they aware of any disease of any nature.

**Case No. 2.** A man of thirty-four, powerful physique, a mechanic, was treated in 1920 till his Wassermann became negative. In 1923 he married on consent of his physician. In 1925 he began to expand in his business enterprises, ceased garage work and began to sell cars. He was overactive, erratic in judgment, and finally maniacal. He was found to have general paresis.

**Case No. 3.** A young lady of thirty-four had a mild convulsion six years ago. She continued with her work. Two years ago her blood was examined and reported positive. She received arsenic and mercury. Two months ago she was forced to cease work because of mild lapses or fainting spells during the day and seizures at night. A spinal fluid test showed over 500 cells mainly lymphocytes, a positive Wassermann, increased globulin. No colloidal gold examination was made. She no doubt has neurosyphilis.

Case number one shows how neurosyphilis may not be recognized in the unsuspecting individual until the disease is in full florescence. The second case points out the error of depending on the blood Wassermann to give the true condition of



the patient. In case three no spinal test was made though the patient was complaining of seizures which pointed to central nervous system involvement. This was a case of negligence of almost a criminal nature.

We find no authority who can give any method of predicting whether the organism of syphilis is going to reach the central nervous system in sufficient numbers to do detectable damage. The figures given for the percent of syphilitics that show signs of central nervous system involvement are variable. Ersatz says there is always some involvement. We know there is involvement in very many cases and the possibility of such involvement cannot be eliminated in any case presented until a full examination, including the spinal fluid is made. A point that must surely strike the attention of everyone is that symptoms and neurological signs may be entirely absent during early involvement. Long before there is any clinical manifestations of the disease having penetrated the brain, cord or meninges, there may be present pathological changes in the spinal fluid awaiting the earnest searcher, and furnishing the diagnostic, prognostic and therapeutic clue to the true evaluation of the condition.

The question of why syphilis attacks the central nervous system of some and not of others has not been settled. Three theories are advanced:

1. The structure of some brains seems to be predisposed to attack, or is more vulnerable. These brains seem by structural makeup to offer less resistance and are thus more readily damaged by the spirochete.

2. There is the theory of different strains of spirochetes. The dermatrophic type forms a firmer chancre with more distinct border: seems to be more inoculable, but seems to have little tendency to affect the central nervous system. The neurotrophic type forms a softer chancre with less endoarteritis of capillaries and seems to have a predilection for the central nervous system. In support of this theory is the fact that those who develop paresis rarely give a history of secondary skin reaction.

3. The Ersatz theory, which claims that the stress and strain on persons who do brain work, predisposes to paresis. He believes that all syphilitics have some involvement of the central nervous system, some clearing up never to return, others by reason of persistence of virulent type of spirochete show late symptoms.

The pathological changes which occur in the different types of syphilis of the central nervous system can be detected grossly as well as micro-

scopically. In paresis the conspicuous involvement is in the vessels and parenchyma. In cerebrospinal syphilis the meninges and vessels suffer most. Vessel changes are conspicuous in syphilitic arteriosclerosis. In tabes there appears grossly a shrinking of the cord in the lumbar and thoracic regions; a sclerosis of the posterior columns; the pia and arachnoid are swollen, but translucent with some cloudiness and opalescence. Microscopically the posterior roots are irregularly atrophied. The posterior columns show degeneration, but with some natural appearing fibers. Noguchi has shown the lesion in tabes to be in the radicular portion of the nerve; i. e., that stretch between the spinal ganglion and the cord proper. Hichter has claimed that granuloma and spirochetes are demonstrable in this area.

In general paresis there is a destruction of the parenchymatous brain tissue with repair shown as glial tissue and spider cells. The spirochetes show a tendency to collect around the small capillaries of the brain and are more frequently found in the anterior lobes. On the floor of the fourth ventricle are found small nodules rather constantly in general paresis.

In meningo-vascular type of central nervous syphilis we see grossly an opalescence and thickening of the meninges with a varying amount of exudate. The meninges have a tendency to adhere to the brain tissue. Histologically there is edema, and an infiltration of lymphocytes and plasma cells more pronounced around the blood-vessels. There is frequently an endoarteritis due to invasion of a cerebral vessel by the spirochete.

The effect of syphilis on different individuals shows a marked variability. Some people have the disease with no symptoms whatever. The spirochete appears to live in their bodies as a saprophyte. Again the organism may be so extremely toxic that the disease is serious and progressive to death in spite of treatment. In the large number of cases, however, treatment helps and often appears to cure. Certain symptoms such as the skin changes and possibly early inflammation of the central nervous system will often seem to clear up spontaneously, and lead to the false belief of a cure. The individual may live for years in apparent good health only to come down later with far advanced signs of organ involvement. The fact that central nervous system involvement is often so remote from the initial trouble, and that the onset is so gradual in its development, accounts for the failure to recognize the condition both by the patient and physician.

The signs and symptoms of neurosyphilis may be enumerated as follows: (1) Subjective symptoms: Rheumatism, neuritis, headache, dizziness, double vision, impotence, insomnia, convulsions. (2) Eye signs: Irregular pupils, unequal pupils, Argyll Robertson pupils, impairment of consensual light reflexes, impairment of vision. (3) Nerve palsies: Facial, auditory, ptosis, eye muscles. (4) Tremors: Tongue, hands, body, speech, handwriting. (4) Ataxias: Station, gait, limbs, speech. (5) Early mental signs: Irritability, seclusiveness, mental apathy, forgetfulness, etc. (6) Spinal fluid changes: Increase in cell content; increase of globulin reaction; positive Wassermann; type of colloidal gold curve.

With such a choice array of signs and symptoms the diagnosis of neurosyphilis is not difficult. But these are mainly late symptoms, indicating damage already done. Before these were recognizable there was an insidious period when no clinical evidences were present. The patient was perhaps receiving treatment and the blood Wassermann was being watched. He appeared in good health and had no complaints. Could you conclude that there was no neurosyphilis?

Involvement of the central nervous system cannot be ruled out without a spinal fluid examination. Changes take place in the fluid before the clinical evidences are present, and furnish the earliest sign of neurosyphilis. More than this the fact that the blood has become negative under treatment does not rule out neurosyphilis for the fluid may be Wassermann positive when the blood has become negative.

It follows then that every case of syphilis should have spinal fluid examination, at first to determine the presence or absence of neurosyphilis and later to follow the progress of the disease.

I am well aware that many cases of syphilis are now under treatment and have been allowed to continue without the importance of spinal fluid examination being stressed by the attending physician. These patients often ask as to the prognosis of the disease. Can a true prognosis be given without knowledge of the spinal changes?

In the treatment of neurosyphilis the desire is to employ that drug which will penetrate the cerebrospinal fluid in as great concentration as possible without damage to the tissues. For early involvement of the central nervous system arsenic and mercury are the preparations most used and are no doubt the drugs of choice.

For late neurosyphilis, i. e., general paresis, tabes, meningovascular neurosyphilis, two forms

of treatment have been developing lately. The first is treatment by non-specific febrile reactions. The living tertian malarial organism is introduced into the blood. Malarial paroxysms are allowed to occur untreated for some time, then quinine is given which destroys the malarial organism. The improvement follows these febrile reactions. To give this treatment an individual infected with malaria of the tertian type must be available, for no method of culturing the organism outside the body has yet been devised. The literature contains reports from a number of hospitals where very encouraging results were secured by this malarial treatment.

A second relatively new form of treatment is by the administration of triparsamide. This is an arsenical preparation which was synthesized by the Rockefeller Institute for Medical Research and in 1921 was placed in the hands of a number of men to be tried in syphilis of the central nervous system. The drug had been proven to be relatively non-toxic, easily administered and to penetrate the cerebrospinal fluid in greater amounts than any other known preparation. Reports of the use of triparsamide have been collecting since 1923.

Lorenz and associates of Minnesota, Stokes, Willhelm, O'Leary and Becker of Rochester, E. Rodgers Smith of Indianapolis, W. C. Meninger of Topeka, Hyder of Washington, D. C. Skogg of Kansas City have used triparsamide long enough to express opinions. Better results are claimed for it than for any other treatment previously used. Some claim better results for the malarial treatment of general paresis. In Iowa the treatment of paresis by malaria is practically impossible, since no hosts are available from whom to secure the blood infected with malaria. Triparsamide is therefore the treatment of choice for late neurosyphilis.

#### SUMMARY

1. Three case reports show the insidious onset of neurosyphilis.
2. The frequency of neurosyphilis is considered. Attention called to its presence without clinical signs.
3. Three theories of why syphilis affects the central nervous system.
4. Pathology of neurosyphilis outlined.
5. The effect of syphilis on different individuals discussed briefly.
6. Outlines of symptoms of neurosyphilis.
7. Values of spinal fluid examinations in all cases.
8. Treatment briefly considered; triparsamide recommended.



# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

## Publication Committee

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

## SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII                      March, 1927                      No. 3

## A CURE FOR OPIUM ADDICTION

We are again confronted with a new cure. The lay public's conception of the practice of medicine is the discovery of a definite and certain method of cure of the various forms of disease, by some drug or agent which the practitioner of medicine may employ, or administer, with the result of curing a disease or by relieving distressing symptoms, thus restoring the afflicted one to health with the least inconvenience to the patient himself. This is quite natural and it has always been the aim of the medical practitioner to find such means of cure. The method employed in earlier days was clinical, of recent years the methods employed have been both clinical and experimental. Whatever method employed has required close and patient observation and many which at first promised all that was hoped for, have, when tested by time, observation and experience, failed absolutely or in part. The reason for this can only be measured by the trained medical mind, not by the lay mind, however well trained in general knowledge.

If we were to go over the field of exploitation in "cures", how many failures may we record? In considering this subject we are confronted by several facts; the sincere and determined purpose of getting at the truth without regard to the amount of work involved, of the disappointments met with, or time involved, as the investigations of Ehrlich, and of Banting, in the discovery of insulin. On the other hand observe the selfish

exploiting in the hope of financial gain, sometimes by men of whom we should expect better things. Again, of men of little training who by accident fall upon some suggestion that promised brilliant results in a financial way; and again on the multitude of charlatans who brazenly promulgated cures for cancer, for consumption, and for various things that will at once suggest themselves. What has become of the Dwight whiskey cure, of the numerous cures for opium addicts and many others? It would be interesting if some patient and industrious collector of strange things, would collect and classify the many "cures" discovered and generally forgotten, in the past forty years or more.

Again, perhaps we have the latest cure, exploited by the newspapers and Drs. Alexander Lambert and Frederick Tinley of New York, who find "Narcosan" a cure for drug addiction. This appears to be a mixture of lipoids and vegetable substances of the nature of non-specific proteids, discovered by "Dr." A. A. Horovitz. In a recent number of the Journal of the American Medical Association may be found a fair, but doubting editorial on "Narcosan". As may be expected, the newspapers take the side of the new cure in a courteous but questioning editorial which appears in the New York World. It appears also that the paper presented by Drs. Lambert and Tinley, was refused by the Journal of the American Medical Association on an adverse report of the Council on Chemistry and Pharmacy, and was promptly accepted by the New York Medical Journal and Record of December 17, 1926. Of course the Association Journal comes in for the usual share of implied criticism by the New York lay press.

What the future history of this new "cure" will be, time only will tell. Will it be the fate of the Dwight whiskey cure? We have been repeatedly informed that drug addiction is a disease or may it be only a habit, as would seem to be implied by the advocates of the Horovitz treatment. It is to be sincerely hoped that the clinical investigations of Drs. Lambert and Tinley, will be to the credit of these well known and highly honored clinicians.

## STATE MEDICINE

An interesting editorial appears in the California and Western Medicine on the relations of government to medicine. The editor of the California Journal is one of the watchful men in the medical profession, and if things go counter to our interests it will not be his fault. In his fore-

cast of the future much responsibility falls on the medical profession. In certain quarters the apparent interests of groups of physicians seems in the end to favor governmental control. There are activities which from their nature must be under the control of the state or municipality, for instance, state or local boards of health, or health commissioners. These organizations must be supported by taxation, but the directing agencies should be trained medical men. The fact that efficient service can be secured only by full-time salaried men may be accepted as a step in state medicine. There are other agencies, such as inspired by the Sheppard-Towner law, that are an unnecessary step in the direction of state medicine. There are well intentioned men who believe that a considerable body of poor people would be greatly benefited by the English Health Insurance Laws; that many families which sorely need medical service would be unable to secure it without government aid. There is no doubt, good reason for this but under our ideas of government it would not work well, and better adjustments could be made. While health agencies are naturally state functions, the treatment of the sick is not a state function. The facilities for the care of the sick, such as hospitals where local conditions will not permit private institutions for treatment, it becomes the duty of the state to provide such institution by public taxation. This may be taken as a step in the direction of state medicine.

The public look to the medical profession for direction in all the activities for the prevention of disease and the care of the sick, and the wisdom and broadmindedness of organized medicine must be the directing factor. If the medical profession fail, the laymen will certainly take it up without much regard to us.

There are matters which we shall invite the state to participate in, and there are matters which should be regarded as the function of the individual, and the practice of medicine is one of them.

---

#### DR. W. A. ROHLF'S SIXTIETH BIRTHDAY

---

There is nothing strange or unusual about a sixtieth birthday, many such birthdays occur without much excitement or serious disturbance in a community or to an individual, we have known many such, but when seventy-nine distinguished members of the medical profession and others come together, representing great universities and clinics and when ten reputable American citizens offer their bodies and perhaps

their lives, to distinguish this day from all other days there must be some cause, some special cause for it. After reading a whole column of newspaper copy, including eloquent speeches, and knowing personally some of the elements in the case, we recognize the personality of Dr. Rohlf himself. We recognize the willingness of the Doctor, at all times, to contribute to the enjoyment and fullness of the occasion. The man who devotes his life to the comfort and welfare of humanity in whatever direction it may be; in swimming the English Channel, circling the North Pole, to removing the appendix or gallstones, is sure of receiving applause and commemorating poetry. We regret that we cannot reproduce the words of the eloquent Anner, or of the graceful Chase, and of many others. Altogether on this and on other similar occasions Dr. Rohlf will have something to contemplate in the days when advanced age really comes.

---

Montezuma, Iowa, January 24, 1927.

Dr. D. S. Fairchild, M.D.,  
Clinton, Iowa.

Dear Doctor:

I have had some experience with tularemia which may be of interest to the profession:

In June, 1914, I saw, with Dr. O. W. King, now of Des Moines, a family by the name of Leatherman, suffering from a form of septicemia, new to both of us. They had recently been on a fishing trip but gave no history or suggestion of infection by handling any specie of rodents.

All had a small sore or swelling on a finger or thumb, lymphadenitis, fever, headache, abdominal pain and marked malaise. They were sick for five or six weeks. The father was taken to Iowa City to Dr. Albert who made a diagnosis of an unusual form of septicemia.

In July, 1926, I was called to see C. G., aged thirty, who about five days before, while baiting a fish hook with a piece of rabbit found dead, pricked his finger with the hook. He had a small discharging sore at the point of puncture, lymphadenitis, fever, headache, abdominal pain and much prostration. The sore had a punched out appearance with dull gray edges and only a small amount of pus. The lymph glands were quite tender and one in the axilla continued to swell slowly for about four weeks when I opened it under anesthesia. The wound soon assumed the same sluggish appearance and was slow in healing. The patient was weak and unable to work for two months and told me recently he was five months getting back to normal. The similarity of the infection to that of the Leathermans was striking and I told him he had Leatherman's septicemia.

About August 5th I was called in consultation to see W. T. who three weeks before had been bitten



by a sow running in a lumber pasture about a mile from the habitat of the rabbit which infected C. G. Five days after being bitten he suddenly developed pain in his arm, fever, lymphadenitis, severe headache and that night became delirious. I suggested to the physician in charge that he had Leatherman's septicemia, which was probably tularemia. We sent a specimen of blood to Edward Frances, U. S. Public Health Laboratory of Washington, D. C. He pronounced it positive for tularemia. I then sent a specimen of blood from C. G. and received a reply that it too was positive for tularemia.

A few weeks later I was able to get a blood specimen from Mr. Leatherman and one of his daughters. The father's blood, after fourteen years, tested positive, the daughter's blood was negative.

I have since had specimens tested from both C. G. and W. T. at Iowa City and both remain positive.

It would seem from this that the infection in this part of Iowa is not so recent as these Leatherman cases, you will remember were in 1914.

E. B. Williams, M.D.

---

Iowa City, Iowa, February 9, 1927.

Dear Doctor Fairchild:

The date of the annual Medical Clinic of the faculty of the College of Medicine has been set for April 19 and 20, 1927. This is an annual event that is gaining in prominence in this and nearby states. Last year there were over 400 registered guests. Facilities for sleeping quarters were arranged in the men's dormitory at \$1 per night and other arrangements were made to make the time here enjoyable.

As usual, two departments will invite as guests of honor medical men of national note who will address the clinic on the subject of their particular field.

Preliminary notices will be mailed in a few days and a complete program will be sent out about April 1.

Very respectfully,

Don M. Griswold,

For the Committee on Annual Medical Clinic.

---

Chicago, February 8, 1927.

Dear Doctor Fairchild:

The success of the VanDyck Cruise to the South American countries, arranged for the Fellows of the American College of Surgeons and their families in the spring of 1923, has brought forth many inquiries as to when and how such a visit may be repeated. These queries have culminated in a plan by Thos. Cook and Son, who conducted the VanDyck Cruise so satisfactorily, for a much more comprehensive trip for the early spring of 1928, which is late summer in the southern latitude and an ideal time to visit that part of the world.

The contemplated cruise will include the east coast of South America, South Africa and East Africa, the

Mediterranean borderlands, and if desired northern Europe. The plans include general sightseeing on shore, with every facility for covering all points of interest that are usually accessible to travelers. An official representative of the College will be of the party, and the friendly feeling of our southern confreres toward the American College of Surgeons will insure a genuine welcome from the South American medical profession to the medical visitors from the United States and Canada, and there is no question but that a similar reception may be anticipated from our medical confreres of South Africa.

There will be a series of interesting scientific meetings in the important medical centers, visits to the hospitals and medical schools, and provisions for personal freedom and ample time for sightseeing and entertainments. It is anticipated that our people will be entertained by the government officials in the same interesting manner as were the VanDyck passengers.

The members of this cruise party will have the added advantage of special features that will be included by Thos. Cook & Son because of the experience acquired by them in conducting the now famous cruise for the surgeons in the spring of 1923. Much of interest is in store for the Fellows of the College. Every precaution has been taken to obtain a ship which is new, the steamship Volendam, which has every facility for South American and South African de luxe passenger service. The ship will be reserved for our exclusive use, and if desired may be used by the passengers as a hotel while in port without extra expense. There will be plenty of room, as freight, second-class and steerage services will be precluded.

If you are interested to go with us, I would urge you to send in your registration immediately, for the number that can be accommodated on this cruise is strictly limited. Each member of the College may extend to one other couple the privileges of the cruise. Deck plans and other available information regarding the cruise will be sent to you upon request, either to this office, or to Thos. Cook & Son, 585 Fifth avenue, New York City.

The cruise of the VanDyck, undertaken under similar favorable conditions, in all reports far surpassed our expectations, and out of my own experience on three visits to South America, I can assure you that we shall have a wonderful time, and I hope you may be able to go with us.

Sincerely yours,

Franklin H. Martin,  
Director-General.

P. S.—The book "South America" has been completely revised, and amplified to include all of Latin America, and the VanDyck Cruise. It may be obtained either through your local bookseller, or from Fleming H. Revell Company, Publishers, 158 Fifth avenue, New York, or 17 North Wabash avenue, Chicago, Illinois, at \$3 per copy.

## LABORATORY NOTES

State Hygienic Laboratories Iowa City, Iowa

Bacteriological, Serological, Epidemiological, Water,  
Records

## HUNTING DISEASE

By Dr. A. V. Hardy, Assistant State Epidemiologist

Another state has awakened to the possibility of malta fever.

Following our notes of two weeks ago it is interesting to hear from New York state. Under the title "Another Argument for Pasteurization" the Health News of the New York State Department of Health says in part, "Recent studies by Dr. V. A. Moore and Dr. C. M. Carpenter of Cornell University and others, suggest that human infection with bacillus abortus, the inciting organism of contagious abortion, may occur not infrequently. Moore and Carpenter have observed several cases which had previously been undiagnosed and agglutination tests upon blood specimens received at the state laboratory have indicated the existence of this condition in various sections of the state. They have found bacillus abortus in the milk of about 60 per cent of the infected cows, and about 30 per cent of the herds examined have been found to be infected".

There has previously been little or no study of bacillus abortus infection of man in the state. From the Veterinary College at Ames we are told that abortion in cattle occurs in every county and perhaps every township in the state, and infection in hogs is only a little less. That this has been due to bacillus abortus has not been proven, but until the contrary is known, we can be safe only in assuming this to be the cause.

It seems probable that a careful consideration of the possibility of malta fever would result in the identification of cases of this disease.

One physician has written "Your offer of laboratory service should help to clear up the diagnosis on many of these cases of remittent fever with profuse sweating and negative physical findings". The history of contact with aborting cattle is often the first clue.

Use the mailing case designed for sending blood for the Wassermann test. Throw away the printed blank and write the patient's name, your name and address, and the type of examination desired. Use your prescription blank and inclose it with the specimen.

It is better for the patients, for you and for us, to do several negative examinations, rather than to miss one positive one. Let us help you to hunt this disease, even though we are rewarded only by the pleasure of the chase.

Dr. Don M. Griswold,

Dir. Hygienic Lab. and State Epidemiologist.

## A YEAR'S INTERNSHIP REQUIRED OF APPLICANTS FOR LICENSE TO PRACTICE MEDICINE IN IOWA

We are informed by the press that a bill has been introduced in the Iowa legislature, requiring a year of hospital internship in a hospital approved by the State Board of Health before a license may be granted for the practice of medicine in Iowa. This requirement has been adopted in other states. Why not in Iowa?

## CHARITABLE HOSPITAL HELD LIABLE FOR BURNING OF PATIENT

(Tribble vs. Missionary Sisters of the Sacred Heart [Wash.], 242 Pac. R. 372)

The supreme court of Washington, in affirming a judgment in favor of the plaintiff, says that he, having been severely burned by an aluminum bottle of hot water while he was still under the influence of an anesthetic after having been operated on while a patient in a hospital conducted by the defendant, a corporation, sued the defendant, alleging negligence in its care of him and negligence in the selection and retention of the person assigned to take care of him. The hospital had what were called probationers, student nurses and graduate nurses. The plaintiff's testimony showed that about the time he regained consciousness a probationer discovered that the bottle of hot water had been left in the bed, and, on taking it out, exclaimed that she had forgotten to take it out. Later on, the same day, on observing the extent of the injuries caused by the bottle, she remarked that she would "get the devil for that". On the other hand, a student nurse testified that when the plaintiff was put in his bed she removed two bottles of hot water, but did not know another one had been left in the bed; did not know who put the bottles in the bed; that the probationer was not in the room when the plaintiff was taken back to it. Of course this dispute of fact as to who was the plaintiff's attendant was for the jury.

Though the point was strongly at issue in the pleadings and in the trial of the case, the court is disposed to the view, on consideration of all the proof, that the hospital was maintained and operated as a charitable institution. Merely because an institution receives or exacts compensation from those desiring its privileges to the extent of their ability to pay does not necessarily deprive the institution of its character as a charitable one. It is the settled rule in the state of Washington that a charitable institution is not liable for torts committed by its servants against a patron of the institution, in the absence of a showing that it failed to exercise reasonable care in the selection of the servant. Ordinary care in the selection of servants implies and demands that degree of diligence and precaution which the exigencies of the particular service rea-



sonably require. Admitting the purpose and advisability of using one or more bottles of hot water to increase the lowered circulation of a patient due to an operation, it is nevertheless highly important that a bottle of hot water capable of doing harm should not be left in such a position in the bed that a patient may be injured by it. The situation requires more care if the patient is unconscious.

It was urged that the exclamations and admissions of the probationer were unworthy of belief, in view of the testimony of the student nurse; but the latter's own testimony showed that she was only a pupil nurse, and that she neglected also to remove the hot water bottle that caused the injury. The probationer did not testify nor was her absence explained. These were all matters for the jury; so also as to the testimony of the officer of the defendant who employed the servants. She alone had charge of and performed that duty, and in the very nature of her testimony it was in many important particulars, if not generally, insusceptible of contradiction. She was, of course, an interested witness. The weight and credibility of such evidence is for the jury.—The Journal of the A. M. A.

---

### AMERICAN COLLEGE OF SURGEONS

---

The recent annual meeting at Montreal was one of the most interesting ever held by the College. The annual reports of our Hospital Standardization and Literary Research departments emphasized the importance of the results already accomplished, and of the necessity of larger endowment to provide for the additional work that must be done to meet the insistent demand from the field upon the service we have undertaken.

In accordance with the program of activities of the College, it was deemed important to proceed at once with the development of our clinical research department. It is believed that the results from this work will be of marked value from the scientific standpoint to the College and the individual Fellows.

A new call has been made upon us, arising from existing conditions in the treatment of traumatic injuries. The committee of Fellows, appointed for the purpose of consideration of this subject, submitted its report and recommended the adoption of a minimum standard pertaining to the practice of traumatic surgery, and that a board of industrial surgery of the College be appointed for the purpose of cooperation in improving conditions in this field. In accordance, the Regents adopted the minimum standard suggested and appointed a board composed of fourteen members, with Dr. Frederic A. Besley as chairman, to carry on the work outlined, provided the necessary financial support can be obtained.

Another committee was appointed to cooperate with the motion picture producers and distributors of America for the ethical application of motion picture films for the teaching of medicine, surgery, public health, and allied sciences for both professional and

lay use. This plan is self-evidently of unusual interest from a broad standpoint.

The larger program of accomplishments of our organization is full of promise, but rests upon larger endowment of the College. Towards the realization of this, the Board of Regents suggested that if those who desire to help in the fulfillment of our aims will each make a codicil to his will, or take out a life insurance policy in favor of the College, the aggregate would ultimately prove of most valuable assistance in making our endowment fund adequate, and without being burdensome to the donors. The minimum amount of \$1000 was suggested, while naturally a contemplated gift in excess of the minimum would be welcomed.

The suggestion met with approval and a number immediately signified their intention of taking action as proposed. Thus far it has been the privilege of the Fellows to donate the endowment fund of our organization without help from others, and in this important respect the College occupies a somewhat unique position. If you feel prompted to cooperate in the manner indicated, please remember that making a will or taking out a life insurance policy is one of the things most commonly neglected. How does the idea impress you?

Sincerely yours,

W. J. Mayo.

---

### \$100,000 OFFERED FOR CONQUEST OF CANCER

---

Two prizes of \$50,000 each have been offered by William Lawrence Saunders of New York for discoveries of the causation, prevention and cure of cancer. The offer was made on December 15, 1926, and will stand for three years. The donor expects to renew it, if necessary.

Mr. Saunders is chairman of the board of directors of the Ingersoll-Rand Company, director of the Federal Reserve Bank of New York and president of the United Engineering Company.

The decision upon which the awards will be made is to be reached by the American Society for the Control of Cancer and approved by the American Medical Association and the American College of Surgeons.

It is Mr. Saunders' idea that discoveries are not always made by experts and that "through the lure of a reward this serious problem might be solved through the genius of a lay mind, by chemists or through unorganized medical sources".

The offer of Mr. Saunders to the American Society for the Control of Cancer has not yet been formally acted upon by the Society, and it is impossible to say at this time what rules other than those proposed by Mr. Saunders will control the decisions. Information as to how persons who wish to present their discoveries for consideration should proceed will be announced later.

Mr. Saunders made his offer known through a letter to Dr. C. N. B. Camac of New York under date of December 13, 1926, and read by Dr. Camac at a dinner given in the interests of the American Society for the Control of Cancer by President Nicholas Murray Butler of Columbia University and Honorable Charles Evans Hughes.

The letter follows:

New York, December 13, 1926.

Dr. C. N. D. Camac,  
76 East 56th Street,  
New York.

Dear Dr. Camac:

I regret that because of a previous engagement, which I cannot well forego, I shall be unable to accept your kind invitation to be present at the dinner on the 15th inst. in the interest of the American Society for the Control of Cancer.

May I ask you to represent me on this occasion by making the following statement?

I will give fifty thousand dollars (\$50,000) to any person or group of persons who may discover what human cancer is and how it can positively be prevented.

I will give fifty thousand dollars (\$50,000) to any person or group of persons who may discover an absolute cure for human cancer.

The entire sum; that is, one hundred thousand dollars (\$100,000) may be given to the same person or group of persons.

The decision upon which these awards shall be made is to be determined by the American Society for the Control of Cancer and approved by the American Medical Association and the American College of Surgeons.

This proposition shall expire at the end of three (3) years from the date of this letter, unless it is further extended by me. This I hope and expect to do.

What I have in mind is this: Discoveries are not always made by experts. Physicians, like business men, are not always the best research workers. Through the lure of a reward this serious problem might be solved through the genius of a lay mind, by chemists or through unknown and unorganized medical sources.

Yellow fever, for instance, has been destroyed through the research work of three obscure army surgeons—Reed, Lazier and Carroll. As far as I know, no cure for yellow fever has been found, nor is a cure necessary so long as we now know how to control and prevent the disease.

This letter gives only the outline of this proposition, the details of which might be drawn up by the American Society for the Control of Cancer, or by such other persons as they may select.

Very truly yours,

(Signed) William Lawrence Saunders.

## WITH THE AMERICAN RED CROSS AT THE FRONT

Arm and leg wounds compose a large majority of the injuries received in battle, hence there is an enormous demand for splints—a framework upon which the injured member may rest in the most comfortable position.

Contrary to the layman's preconceived opinion of a splint, it is not a piece of wood, but, for the use of the American Army, is of steel framework with leather and felt padding. And most of them are of ingenuous invention, being far from simple affairs. The types are almost as numerous as the injuries for which they are made to aid in healing.

The American Red Cross has taken over the job of supplying all splints to the American Expeditionary Forces, and in the vernacular of the streets, it is "some job". The demand for these particular articles is increasing at a great rate due to the increasing activity of American troops on the battle front.

To meet this demand the Red Cross has established a splint manufacturing plant of its own in a large French town not far from the battle front.

While the splint construction is not complicated, it must be exceedingly careful and delicate. The splints that fit on the upper portion of the leg or arm must be carefully padded with felt and sheepskin. This work is done by French women and by hand.

Most of the leg and arm splints are made of steel rods bent in the shape of a U and are about four feet in length. They taper from the bottom up to the top where a semi-circular steel rod, attached to each end of the U by a hinge, is padded well and attached. Upon the padded part rest the thigh or shoulder of the injured member. The wounded or broken leg or arm is bandaged between the two sides of the U. The bottom of the U is dented in order that a bandage may be attached to the bottom of the splint and the injured member for the purpose of pulling or applying the necessary weight to force the broken bones or torn muscles into place. It also serves to attach the splint to the foot of a bed or the front of an ambulance so that the wounded leg or arm may be elevated to any position which will give the greatest comfort to the sufferer.

There are numerous variations of this basic splint. Some have a hinge in the center of both sides of the U, so that an injured leg or arm may be bent at the knee or elbow and bound into position. Some have a hand rest at the end, by which the hand may be bandaged into an immovable position, so that injured muscles will not be moved by unconscious effort. Then there is the U splint with an unmovable padded steel circle at the top, which fits close to the leg or shoulder crotch. A splint of this type is also made with hinges so that the arm or leg, stretched straight and fast, may be moved at the thigh or shoulder. There are small wire splints for the foot, the hand and the wrist.



All of them are made by hand in this factory, because of the lack of machinery. Even the welding and varnishing of the steel and wire, as well as the nickeling, is done in the Red Cross factory.

This is only one of the many activities from which the American Red Cross has relieved the Army. During the past few months the Red Cross has been forced to let contracts to various private manufacturers to furnish a sufficient supply of these necessary hospital appliances. But with the growth of its organization, it has established its own manufactory in the war zone of France, in order that there may be fewer transportation delays and better service in the work of relieving as much suffering as possible among American wounded.

W. D. H.

---

### UNITED STATES CIVIL SERVICE EXAMINATION

---

The United States Civil Service Commission announces the following open competitive examination:

#### Physiotherapy Aide Physiotherapy Pupil Aide Physiotherapy Assistant

Applications for these positions must be on file at Washington, D. C., not later than March 12 and May 28, 1927. The date of assembling of competitors will be stated on admission cards sent to applicants and will be about ten days after the date for the close of receipt of applications. Applications received after a closing date will be considered for the next date.

The examinations are to fill vacancies in the Field Service of the Veterans' Bureau and the Public Health Service.

The duties of physiotherapy aides consist of administering physiotherapy in its several branches—massage, electrotherapy, hydrotherapy, mechanotherapy, thermotherapy; active, passive, resistive, and assistive exercises and remedial gymnastics; keeping daily record of the work and progress of each and every patient coming under direction and treatment; making the required reports of the activities of the reconstruction work in physiotherapy.

The duties of physiotherapy pupil aides are the same as those for physiotherapy aides, except that they are pupils under the supervision and instruction of the chief aide in all the work above mentioned.

The duties of physiotherapy assistants consist of administering to special cases the treatments of physiotherapy, as massage, electrotherapy, hydrotherapy, thermotherapy, mechanotherapy; active, passive, assistive, and resistive exercises; remedial gymnastics; keeping a daily report of the work in progress on each patient under the appointee's direction and treatment; and making the required reports of the activities of the reconstruction work in physiotherapy.

Competitors will be rated on practical questions and their education, training, and experience. Com-

petitors in the examinations for physiotherapy aids and physiotherapy pupil aide will also be rated on a mental test.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. Civil Service examiners at the post office or custom house in any city.

---

### SYPHILIS AND HEART DISEASE

---

The relation between syphilis and cardiac disease was discussed at the recent sessions of the Imperial Social Hygiene Congress (British) by Colonel Sir Leonard Rogers, representing the Government of India. He said that practically the whole of heart disease in India was due to syphilis and concluded that the eradication of it would reduce heart trouble there to negligible proportions.

In this connection it might be observed that India is not alone in recognizing the great socio-economic problem of controlling syphilis. The United States Public Health Service has recently issued a compilation of abstracts relating to visceral syphilis for use in its cooperative work with the state departments of health in the control of venereal diseases. These abstracts reflect the causative influence of syphilis in diseases of the heart, aorta and peripheral blood-vessels. Special attention is being given in all countries to the prevention of these diseases by prompt adequate treatment in the early stages of syphilis before the heart and blood-vessels become involved.

---

### RESOLUTIONS ADOPTED BY THE STATE MEDICAL SOCIETY OF NEW YORK THROUGH THE COUNCIL

---

Whereas, physicians alone are qualified by training and licensure to employ narcotic drugs, which, under certain conditions, are the greatest boons to suffering man, and

Whereas, no rules or regulations can be promulgated by which the dispensing of these beneficent drugs can be standardized, but decision must be left to the judgment of the attending physician if human suffering is to receive prompt relief, and

Whereas, already many physicians have concluded the hazard and jeopardy to their license and opportunity to practice medicine incurred by the multitudinous rules and regulations involved in dispensing narcotic drugs, is so great and imminent that they have permitted their registration to use narcotic drugs to lapse, and

Whereas, the public must of necessity suffer in the end if the physician lacks equipment and facilities for proper and prompt relief of pain, therefore,

Be It Resolved, that the Medical Society of the State of New York petitions its congressmen, individually and collectively, to oppose any amendment and revision of the Harrison Narcotic Law that

would make more difficult the conditions under which physicians are obliged to work at present. It requests immediate and continued opposition to favorable action on bill HR-11612 and its companion, S-4085, on the following grounds:

1. It would be an unwarranted hardship on the physician to deny him registration under the Harrison Narcotic Act for a period of from one to two years if convicted of any violation whatsoever of the Act, no matter how technical and unimportant the offense may be;

2. It is unnecessary to give collectors of internal revenue authority to refuse registration under the Harrison Narcotic Act, to physicians whom such collectors believe to be narcotic addicts; because the law of the state of New York provides for the withdrawal of the license to practice medicine from any physician convicted of being a narcotic addict, and the amendment suggested in both of these bills makes no provision for notice and hearing before such refusal, nor for an appeal from the collector's decision;

3. It is an unfair precaution, and the imposition on pharmacists of an impossible task, to authorize and require that they refuse to dispense narcotic drugs on any prescription issued by a physician if the pharmacist is of the opinion that the physician did not issue the prescription in the course of his proper professional duties;

4. It must be conceded that physicians should be permitted to use their best judgment in deciding the character and type of treatment to be employed on any particular patient they have under their care and, hence, it would be entirely wrong for any law to forbid absolutely and under any and all conditions whatsoever, the ambulant treatment of narcotic addicts;

5. It would be an inexcusable imposition to make physicians keep more records than are now required, of narcotic drugs administered and dispensed in their services to the public.

### IS THERE A STANDARD SUPRARENAL EXTRACT?

The pressor principle of the adrenal medulla is best known by its original name—Adrenalin—the name given it by its discoverers in 1900. A variety of other names have been invented to describe this active principle as offered in commercial form by other houses; but when the term "Adrenalin" appears in print it is associated in the reader's mind with the house of Parke, Davis & Company.

Adrenalin is not made by synthetic means; it is the natural product derived from suprarenal glands, and the natural product is levorotatory. Parke, Davis & Company stress the fact that their manufacturing process not only yields the levorotatory (active) extract, but also that the process is so designed as to keep that extract in its active levorotatory condition. See their advertisement elsewhere in this issue.

### FURTHER NARCOTIC RESTRICTIONS OPPOSED

The Philadelphia County Medical Society adopted a resolution, November 17, to the effect that the Senate Bill No. 4085 and House Bill No. 11612, which aimed to impose further restrictions on physicians with regard to carrying out the Harrison Narcotic Act, should be defeated. The society considered that the proposed bills do not allow any physician to defend himself if charge is made against him personally in the use of narcotics, or in his prescribing narcotic drugs for other persons, and they require burdensome keeping of records without any additional safeguard.—Federation Bulletin.

### SOCIETY PROCEEDINGS

#### Blackhawk County Medical Society

The Blackhawk County Medical Society met at Black's Tea Room, Waterloo, January 5, 1927. Dr. F. T. Boiler, formerly of the Iowa University Medical School, now practicing in Iowa City, presented a paper on Facial Neuralgia, discussed by Drs. Sage and Boysen. Miss Francis B. van Zandt presented the subject of the State Medical Library and the advantages to the profession to be derived from it.

The officers elected were: Dr. W. L. Hearst, Cedar Falls, president; Dr. J. E. Ridenour, vice-president; Dr. A. A. Hoffmann, secretary; Dr. F. C. Sage, treasurer, and Dr. Frank T. Hartman, censor.

Members of the Blackhawk Dental Association were guests at the meeting.

#### Buena Vista County Medical Society

A meeting of the Buena Vista County Medical Society was held at the Bradford Hotel Monday evening, January 10, at which time Dr. S. T. Orton, director of the state psychopathic hospital at Iowa City, and Dr. Sprague, who is in charge of the mental clinic, were honored guests at a six-thirty o'clock dinner given at the Bradford Hotel. An informal program was carried out following the dinner and included the discussion of various subjects. Quite a large number were in attendance at the meeting.

#### Calhoun County Medical Society

The Calhoun County Medical Society, at its monthly meeting Thursday evening, January 27, took the following action: "Be it resolved by the Calhoun County Medical Society that the public should be warned that scarlet fever in mildly epidemic form is now present in at least two towns in the county. That they should be reminded anew of the common knowledge of the possibility of serious, even fatal, scarlet fever resulting in passing mild, almost symptomless scarlet fever from one case to another—only one change of hosts resulting in the remarkable addition of strength and virulence to the scarlet fever germs. That medical science has now a means of producing immunity to the disease in susceptible



persons, in scarlet fever antitoxin, and that this society recommends the method as safe and so nearly certain as to be worthy of use".—The Starr.

#### **Cerro Gordo County Medical Society**

The Cerro Gordo County Medical Society held their regular meeting January 18, 1927. A 6:30 dinner was held at the Hanford Hotel, Mason City. Dr. James Wallace of the State Department of Health addressed the society after dinner. His subject was Diphtheria Prophylaxis. It was very instructive and interesting. Dr. W. E. Long gave his report of the meeting of the County Society Secretaries held in Des Moines in December of last year. An outline of work for the County Society was discussed, and committees appointed.

#### **Iowa County Medical Society**

The Iowa County Medical Society met in the public library in Marengo on Tuesday, November 9.

The election of officers for the coming year resulted as follows: President, Dr. Ciney Rich, Williamsburg; vice-president, Dr. Frederick C. Schadt, Williamsburg; secretary-treasurer, Dr. I. J. Sinn, Williamsburg. The vacancy on the board of censors occasioned by the expiry of the term of Dr. J. C. Patterson, was filled by the election of Dr. C. H. Hermann, Jr., Amana.

#### **Johnson County Medical Society**

The Johnson County Medical Society met at their regular session at the Chamber of Commerce rooms, Iowa City, February 2nd. Sixty-one members and visitors were present as guests of five of the physicians, who were the hosts for this meeting.

A 6 o'clock dinner was followed by a short talk by Dr. Downing, president of the Linn County Medical Society, on the topic, Putting a County Medical Program Across.

The scientific program was given by: Dr. J. C. Kessler, two cases of dermatitis, one primrose, one phenophthalein. Dr. J. B. Kessler presented a case of purpura annulare teleangiectoides. Dr. D. M. Lierle gave a paper on the treatment of common colds. Dr. D. F. Fitzpatrick gave a short report of a double traumatic perforation of the abdominal cavity.

Five new members were admitted. They are Drs. E. J. Anthony, Thos. Furlong Baxter, Thos. Philip Brennan, Norman F. Miller and Tiffany J. Williams. Geo. C. Albright, Sec'y.

#### **Linn County Medical Society**

The regular meeting of the Linn County Medical Society was held Thursday, February 10, 1927, at the Hotel Montrose, Cedar Rapids. The program was as follows: Immunization of Diphtheria, James W. Wallace, M.D., C.P.H., Iowa State Department of Health; Syphilis of the Nervous System, Tom B. Throckmorton, M.D., Des Moines, with lantern demonstrations.

#### **Mahaska County Medical Society**

Mahaska County Medical Society held its annual meeting on January 4, 1927. After a steak supper the society elected the following officers: President, Dr. C. A. Ayers of Leighton; vice-president, Dr. F. A. Gillett of Oskaloosa; treasurer, Dr. B. O. Jerrel of Oskaloosa, and secretary, Dr. Geo. H. Clark of Oskaloosa.

The officers were installed and such committees as necessary, were appointed for the year.

After the regular order of business the society adjourned until the regular February meeting.

Geo. H. Clark, Sec'y.

The Mahaska County Medical Society held its regular monthly meeting at Oskaloosa on Tuesday, February 1, 1927.

After a stag supper the regular business of the society was transacted; followed by the presentation of a paper on Corneal Wounds by Dr. W. S. Windle.

The paper was discussed by several of the members and the meeting adjourned.

Geo. H. Clark, Sec'y.

#### **Marshall County Medical Society**

The Marshall County Medical Society held its monthly meeting Wednesday evening, February 2, at the Willard home.

Dr. F. L. Wahrer read a paper on Radiant Energy in the Treatment of Acute Sinus Disease. This paper was based on his personal experiences with infra red radiant energy in the treatment of sinus infections, showing how it functioned in affecting adequate drainage. His report was very favorable to this method of cases in which he had met with gratifying success in relieving congestion permanently.

He stressed the importance of giving the patient early relief in order to offset development of a chronic condition, and gave infra red radiant energy first place as a therapeutic method in alleviating pain and giving permanent relief.

C. H. E. Boardman delivered an address on the subject of What Becomes of Your Estate When You Cash In? putting the proposition of making a will before his hearers as a profound duty. He delved into history to trace the development of the present practice of directing one's property to some specified heir or heirs, giving the definition, "A will is a legal form of a man's intention after he is dead", as a correct meaning of the term which has stood for 2,500 years.

Mr. Boardman went into considerable detail in regard to will contests, their causes and possible chances of success, stating that only on rare occasions were such attempts successful, due to the simplicity of wills and the law's interpretation. In closing he urged everyone to take an annual inventory to determine the true standing of one's assets and liabilities.

Dr. W. W. Southwick, secretary of the society, made a report, giving the financial status of the society and other information relative to its function.

An exhibition of a pathological specimen was conducted by Dr. F. L. Ferris of Melbourne. Dr. Ferris related the history of an unusual ulcer case, showing its action in undermining in the victim's stamina and gradually causing death.—Times Republican.

#### Ringgold County Medical Society

A meeting of the Ringgold County Medical Society was held Tuesday, November 23, in the auditorium of the public library, Mt. Airy. Max E. Witte, M.D., superintendent of the state hospital for insane at Clarinda, was present and delivered two addresses as follows: Random Observations in Heredity and The Mental Diseases of Old Age.—Record News, Mt. Airy.

#### Woodbury County Medical Society

The regular January meeting of the Woodbury County Medical Society was held at the Jackson Hotel, Sioux City on Wednesday evening, January 26, 1927.

Program: Maintenance Diet in the Treatment of Diabetes Mellitus, by Dr. R. N. Larimer.

Dinner at 6:30 p. m.

Roy E. Crowder, Sec'y.

#### Southwestern Iowa Medical Society

The Southwestern Iowa Medical Society met at Creston, Iowa, on Friday, November 12, 1926, the meeting taking place in the afternoon at the Greater Community Hospital. The following program was carried out:

1. Diabetes in Children—Dr. Jack Treynor, Council Bluffs.

2. Some Causes of Delinquency and Dependence—Dr. Russell C. Doolittle, Des Moines.

3. Headaches, Their Etiology and Differential Diagnosis—Dr. Cecil C. Jones, Des Moines.

4. An Evaluation of the Recent Advances in Cardiology—Dr. Daniel J. Glomset, Des Moines.

Discussion on the program was general and the opinion was expressed that the subjects presented were of great interest and value to the numerous medical men present.

Officers for the ensuing year were elected as follows: President, Dr. F. E. Sampson, Creston; vice-president, Dr. F. S. Williams, Villisca; secretary, Dr. John C. Parsons, Creston.

The next meeting is to be held in the early spring at Creston.

John C. Parsons, Sec'y.

#### Iowa State Radiological and Physiotherapy Society

Dr. F. L. Nelson, local physician, was elected president of the Iowa State Radiological and Physiotherapy Society, at the annual meeting of the society, November 23 at Hotel Fort Des Moines, Des Moines. Dr. Malcomb Campbell of Malvern, was

made vice-president, and Dr. J. F. Edwards of Ames, secretary and treasurer.

About 100 physicians from all over the state attended the meeting. There were discussions of the causes and treatments for cancer and surgical diathermy was pronounced the newest treatment. X-ray treatment, radium treatment and the various methods of using physiotherapy in medicine was presented in papers. The speakers included professors and physicians from all over the United States. Doctor Nelson read a paper on Cancer of the Bladder.—Keosauqua Republican.

#### THE STATE MEDICAL SOCIETY OF WISCONSIN

The dates for the next meeting of the State Medical Society of Wisconsin to be held at Eau Claire, Wisconsin, are as follows:

House of Delegates—Tuesday evening, September 20, 1927.

General Sessions—Wednesday, Thursday and Friday, September 21, 22 and 23, 1927.

J. G. Crownhart, Sec'y.

#### MEDICAL NEWS NOTES

Cedar Falls has one of the most modern hospitals in Iowa, according to Dr. S. W. Barnett, secretary of the Cedar Falls Medical Society, who came to this city about two years ago. He referred, of course, to Sartori Hospital, a municipal institution made possible through a bequest of \$25,000 by the late Joseph Sartori, pioneer resident here, a \$10,000 gift by his son, J. F. Sartori, and gifts from many citizens totaling upwards of \$30,000. These included gift of the building site, a beautiful 13-acre tract, and money toward the building and equipment. The hospital was formally opened to the public in February, 1915. About three years ago, J. F. Sartori made a further offer of \$15,000 toward building a nurses' home; if citizens here would clear off a \$6,000 indebtedness the hospital was then carrying. The money was subscribed.—Cedar Falls Record.

Dr. C. A. Abbott of Oskaloosa, charged with fraudulent practice through the use of radio wave treatments for the cure of diseases for which the state sought to revoke his state license for the practice of medicine, was acquitted recently by judge Henry F. Wagner of Sigourney.

Judge Wagner held that the evidence presented by the state was not conclusive enough to warrant any other decision.

Scores of witnesses for the state and defense were heard during the course of the trial which began a month ago.

Charges were preferred against Dr. Abbott following an investigation by the state attorney general's office. The defendant freely admitted that he used radio waves, transmitted to "tin hats" on the heads



of patients both in Oskaloosa and the adjacent community for the cure of diseases.

More than 100 witnesses testified that they had been benefited by these treatments, in their homes and in the hospital maintained by Dr. Abbott.—A local paper.

A gathering of representative citizens of Burlington, that almost filled the auditorium at the city hall unanimously went on record as endorsing the county health unit plan for Iowa and Des Moines county. The occasion was the annual meeting of the Social Service League and the endorsement came after hearing Dr. James Wallace of the State Department of Health. The resolution was proposed by John J. Fleming with amendments by Carl Pryor and Moffat Finck with recommendations that the city council and board of supervisors, in addition to the action of the meeting urge Senator Clyde Topping and Representative Mathews to support the measures.

The annual report of the Iowa State Medical Library for 1926 shows that during the year more than 8,000 books and journals were loaned to medical, dental, surgical and veterinary practitioners in Iowa.

Miss Frances van Zandt who is in charge of the library, said the service rendered by the library is supported by the state, book borrowers only being required to pay the postage on books desired and comply with time limits on the book loans.

The library was established six years ago by Johnson Brigham and the late Dr. Gershom H. Hill, following suggestions from the medical profession. Miss van Zandt assumed charge of the library in 1922. She was formerly connected with Cornell University at Ithaca, New York, for many years.

### PERSONAL MENTION

Dr. O. H. Muller of Minneapolis has joined the staff of the New Hampton Clinic, as general practitioner and obstetrician. Dr. Muller is a graduate of the Medical School of the Indiana State University.

Dr. R. Gaylord Davis, formerly of Indianola, has been promoted to the rank of commander in the navy. Dr. Davis is a flight surgeon in the medical division and located at Washington, D. C.

Dr. W. G. Walker of Corydon has moved to Houston, Texas, where he will specialize in eye, ear, nose and throat in connection with the Hights Clinic.

Dr. R. M. Mayne of Green has sold his practice to Dr. H. G. McLeod of Canada. Dr. Mayne moves to Duluth, Minnesota.

Dr. Clarence P. Phillips of Mason City has joined with Drs. T. F. Beveridge, L. C. Howe, E. R. Tyler and W. W. Daut of Muscatine in forming a medical clinic at Muscatine.

Dr. S. H. Bateman of Washington, Iowa, has moved to Muscatine where he will engage in the practice of medicine. Dr. Bateman is a graduate of the medical department of St. Louis University and has practiced in Iowa ten years.

Dr. C. A. Aplin has been appointed school physician of Ames, succeeding the late Dr. H. M. Templeton. He is also city physician.

Dr. George P. Neal has been appointed health physician at Fort Madison.

Dr. Fred J. Diver, formerly of Calgary, Canada, has located in Sanborn, succeeding Dr. J. W. Levy, who was recently appointed to the clinic at Hot Springs, Arkansas.

Dr. Walter L. Bierring of Des Moines, with a distinguished group of physicians and surgeons, spoke before the annual Congress of the Council on Medical Education and Hospitals held in Chicago, February 14, 1926.

### MARRIAGES

Dr. John R. Buser of Waterloo and Miss Lillian Pearl Young of La Porte City were married January 1, 1927.

### OBITUARY

Dr. A. L. Brooks, pioneer physician, died Wednesday at the home of his daughter, Mrs. W. E. Kimble, in Des Moines. Dr. Brooks had been ill a number of years, but only recently gave up his practice in Audubon. He had been one of the leading doctors in Audubon county since 1883, when he located at Gray where he remained five years, removing from there to Audubon.

The deceased was born in Vinton, Iowa, on June 6, 1858. He received his early education in the common schools and later attended Blairstown Academy. After this he taught school and worked on farms during vacations, later taking up the study of medicine, and was graduated from the Rush Medical College in Chicago, in 1883. He was married in 1887 to May Langworth, who died in 1898, leaving one child, who is now Mrs. W. E. Kimble, at whose home Dr. Brooks died. In 1901 Dr. Brooks was again married to Caldonia Young who passed away in 1924. To this last union two children were born, Emmett F. and Jane C., both of whom survive.

In 1890 Dr. Brooks was elected to the Twenty-fourth Iowa General Assembly and served during the session of 1891, filling places on many important committees. He was prominent in fraternal circles in Audubon county and was a member of the Methodist Episcopal Church.

Dr. A. J. Hobson, dean of physicians in Franklin county, had been dangerously ill for several weeks and confined to his home, suffering intensely from heart trouble. He died at his residence on west Seventh street, Hampton, at 1:00 o'clock a. m., November 18, aged sixty-seven years, one month and twenty-one days.

Dr. Abraham J. Hobson, a son of William and Mary Hobson, was born in Poweshiek county, Iowa, September 27, 1859, and at the age of five years

came with his parents to Franklin county. The family located on a farm in Reeve township near Maysville, where he grew to manhood. He attended the Friends Academy at Legrand and following his studies there entered the medical department of the State University at Iowa City and in 1884 graduated with the degree of M.D. He then started to practice medicine at Bristow and in 1891 took a year's course in post-graduate work at the University of Pennsylvania in Philadelphia, after which he returned to Iowa and located at Hampton. His skill as a physician soon became apparent and this quality, coupled with untiring energy and determination gave him a large practice which he retained unceasingly for a period of thirty-four years.

Six years ago Dr. Hobson became associated in business with Dr. E. D. Allen and this partnership has since continued under the firm name of Hobson & Allen.

Dr. Hobson was twice married. His first wife, Miss Ella Johnson, died in April, 1891, leaving a son, Carl Hobson, who grew up in Hampton and after graduating from our high school attended the University of Minnesota and later graduated from the University of Pennsylvania at Philadelphia, and coming home formed a partnership with his father in the practice of medicine. The son died on November 14, 1913. On May 4, 1895, Dr. Hobson married Miss Isabelle Milloy of Brantford, Canada. Two children were born to this union.

Dr. C. W. Ashton of Traer died at his home January 17, 1927, of heart disease, at the age of eighty-six years. He was born in Pennsylvania, November, 1841, and came to Traer in December, 1873, about six months in advance of the first train. For forty-three years he remained in active practice but when it came to giving up his old horse and buggy and to take up the new method of transportation he felt that his horse and buggy could not keep up with his professional associates' automobiles, and as it was too late to take up the new method he retired from active practice. Dr. Ashton became familiar with the hardships of the old-time country doctor and no one knew better than he how cold Iowa winters could become. On February 6, 1875, he married Miss Mary A. Reed of Vinton, who survives him.

When Dr. Ashton retired from the active practice of medicine he continued an active interest in the social and religious interests of Traer and served as an officer of the Methodist church for more than thirty years.

Dr. Edward Molloy of Waterloo sustained a fracture of the skull January 23, 1927, and died at St. Francis Hospital January 24, 1927.

Dr. Molloy was born in Ireland in January, 1867. When a young man he matriculated at and completed a course in the British University at Dublin, Ireland. He came to the United States when he was nineteen years of age. After several years in various occupations he entered the State University of

Iowa and later completed his medical schooling at the Northwestern University School of Medicine in Chicago.

For several years he practiced medicine at Fairbank, Iowa, and in April of 1915 came to Waterloo to practice his profession. He was married July 23, 1913.

He was a member of the county, city and state medical societies and took an active interest in their work. He was a member of the Elks and Knights of Columbus lodges here. He was a member of St. Joseph's parish.

Surviving besides his wife, Mrs. Margaret Molloy, is one daughter, now attending Mount St. Joseph's school at Dubuque.

People from every walk in life coming from all portions of the state gathered at St. Joseph's Catholic Church to pay their last tribute to Dr. Edward Molloy, whose death occurred as the result of a fall. The church, the largest Catholic edifice in the city, was not large enough to accommodate the throngs who came to attend the last rites, several hundred being turned away from the doors.

Members of the local, county and state medical societies, Knights of Columbus, members of the Elks and representatives of other local lodges were included in special groups. The active pallbearers were Dr. R. J. Nestor, Dr. A. J. Joynt, George A. Scully, James Cronin, J. J. Meany and V. J. Recht-fertig.

Honorary pallbearers were men who had been associated with Dr. Molloy in the practice of his chosen profession, being named from the roll of the Waterloo Medical Society, of which the deceased was a member. Dr. J. G. McAlvin, Dr. A. A. Hoffman, Dr. T. F. Hartman, Dr. F. W. Porterfield, Dr. T. U. McManus and Dr. J. W. Rowntree composed this group.

Dr. George Bronons McGuin of Grinnell, who died recently, was born at Sacketts Harbor, New York, September 1, 1855. The family came to Iowa in 1867 and located on a farm near Brooklyn. In 1879 McGuin graduated from Grinnell College and in medicine from the Iowa State University with the class of 1884. Dr. McGuin practiced medicine several years at North Branch, Minnesota and later moved to Brooklyn, Iowa. In 1888 he engaged in the drug business at Grinnell.

It is reported that Dr. Hamilton Fish Bigger of Cleveland, personal physician of John D. Rockefeller, Sr., died at Cleveland, Ohio, at the age of eighty-seven years. Dr. Bigger had practiced in Cleveland for fifty years.

Physicians practicing in eastern Iowa will recall Dr. Pettit of Ottawa, Illinois, who devoted much time to the study of tuberculosis in the early days of sanitarium treatment of this disease. Dr. James W. Pettit died September 3, 1926, at the age of seventy-eight years. He was at one time president of the



Illinois State Medical Society and was for many years an active member of the House of Delegates of the American Medical Association.

### BOOK REVIEWS

#### PUBLIC HEALTH BULLETIN NO. 148

Mental Hygiene with Special Reference to the Migration of People. By Waltert L. Treading, Surgeon U. S. Public Health, Treasury Department, United States Public Health Service, Washington, D. C., 1925.

This is a pamphlet of 190 pages based on a study of 6,629 mental disorders detected among 17,957,807 arriving aliens, seeking admission to the United States during a period of twenty-two years. It is presented to show the influence of migration on the development and modification of policies respecting mental diseases in the United States and the difficulties in meeting the changing situations which have brought about our present immigration policy.

An examination of the records of 100 years of immigration to this country, including all racial groups, the criminal and pauper. In addition, the records of public institutions show the problems we have to contend with in relation to mental disorders. The subject is considered under several heads: The Concept of Mental Hygiene; Man as a Product of Social Evolution; The Role of Habit and Choice of Response; A Mental Health Approach to the Socially Misfit.

Chapter Two: Migration Establishes a Policy of Public Relief.

Chapter Three: Implanting a Public Relief Policy in America.

Altogether fourteen chapters are given to the consideration of the mental disease aspect of immigrants and migration, a subject well worthy of the study in its effect on population and relief.

#### CLINICAL PEDIATRICS

By John Lovett Morse, M.D., Professor of Pediatrics, Emeritus, Harvard Medical School; Consulting Physician at the Children's, Infants' and Floating Hospital, Boston. W. B. Saunders Company, 1926. Cloth \$9.00 Net.

The well known character of Dr. Morse's work in diseases of infants and children at once invites interest when his name is attached to a book on Pediatrics, and even when he announces that he entered upon a production for the purpose of self-culture our interest is not lessened.

The book is divided into several sections: Section one, Congenital Malformations; sections two and three, Birth Injuries and Diseases of the New Born; sections four and five, Nutrition and Diseases of Nutrition.

These several sections include diseases of a general character and are fundamental if the infant profits by safe management of nutrition and escapes

the dangers of disease or failure of the nutrition organs he is in a fair way to meet the dangers of diseases of the special systems and the infectious diseases.

The greater part of the book is devoted to systemic diseases, but we must bear constantly in mind the fact that if the sections referred to are carefully studied and observed the child may with greater safety pass the diseases of future years.

#### THE SURGICAL CLINICS OF NORTH AMERICA

Lahey Clinic Number; 214 Pages with 54 Illustrations. W. B. Saunders Company. Paper \$12.00, Cloth \$16.00 Net Per Clinic Year.

An examination of this attractive number reveals an operative group of eight men who for a period of time are presenting to the medical profession the product of their work. Reduced to the terms of surgery, a service not unlike an industrial plant is putting forth the best of their output for the use of the public through the agency of medical profession. This clinic is located in Boston but there is no evidence of a tariff for protection purpose, but rather a full exposition of a rather wide range of subjects under the direction of a remarkably brilliant surgeon.

#### MEDICINE IN CHAMPAIGN COUNTY, ILLINOIS—A HISTORICAL SKETCH

By Charles B. Johnson, M.D.

Dr. Charles B. Johnson of Champaign, Illinois, has been in the "Medical Harness" for a period of sixty years and being deeply interested in the welfare of the medical profession has during his later years been writing of the activities of pioneers of central Illinois and of the medical profession in particular. Dr. Johnson has lived practically all his life in this section of the state and has seen it grow from the beginning to its now highly developed state. It is an experience given to but few. In future years these writings will be of great interest and value and if our civilization continues, future generations of Champaign will feel under a debt of gratitude to Dr. Johnson for writing out his experiences which will be of a more intimate character than if he had not been a country doctor.

#### THE MEDICAL CLINICS OF NORTH AMERICA

July, 1926; Volume 10, Number 1; Octavo of 260 Pages with 24 Illustrations. W. B. Saunders Company. Paper \$14.00, Cloth \$16.00.

This is an unusually brilliant number, the product of a strong group of clinics representing the foremost of Philadelphia clinicians. It is impossible to select any particular group of subjects for consideration and we cannot do better than note the first two or three subjects as an illustration of the number. Carcinoma of the Bronchus, by Dr. Thomas McCrae.

(Continued on advertising page xxii)

**OBSTETRICS**

**DR. CARL C. BICKLEY**  
OBSTETRICIAN

Waterloo, - - - - - Iowa

**WM. E. BROWN, B.S., M.D.**

Practice Limited to

OBSTETRICS

504-6 American Trust Bldg.

Cedar Rapids, - - - - - Iowa

**EYE, EAR, NOSE & THROAT**

**DR. C. P. COOK**  
EYE, EAR, NOSE AND THROAT  
524 Iowa Building

Des Moines, - - - - - Iowa

**NURSES**

Registered Nurses Central Registry

OF THE

SEVENTH DISTRICT IOWA STATE NURSES ASS'N

1140 Nineteenth Street - - - Des Moines, Iowa

*Calls answered day or night*

Telephone Drake 352—Louise Price, R.N., Registrar

**THE TROWBRIDGE TRAINING SCHOOL**

A Home School for Nervous and Backward Children

**THE BEST IN THE WEST**

State Licensed

E. HAYDN TROWBRIDGE, M. D., Chambers Bldg., 12th & Walnut, Kansas City, Mo.

When patronizing the firms  
advertising in *this* Journal,  
please mention the Journal.

The Advertiser will appreciate it, the Journal will appreciate it, and You will show your appreciation of  
the Journal

Write the Business Manager of the Journal,  
Des Moines, for rate on card space, and send  
in your copy for card.

**List Your Wants in This Space**

**SITUATIONS WANTED**—Salaried Appointments for Class A physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

**GET OUR FREE SAMPLES** of stationery for Professional use. Bargain prices on envelopes, statements, letter heads and other printing. Woolverton, Dept. MS, Cedar Falls, Iowa.

**FOR SALE**—\$7,000 general practice—drugs and equipment, including Victor X-ray. Town 500—Protestant and Catholic Churches. New \$75,000 school, excellent roads, one other M.D. Collections 90 per cent. Main highway, hospital facilities, entering government service. Write D. C. S., care Journal of Iowa State Medical Society.



## BOOK REVIEWS

(Continued from Page 112)

Abscess of the Liver, by Drs. George W. Norris and David L. Farley. On the Neglect of Onset of Symptoms, by Dr. O. H. Perry Pepper. The value of these clinic numbers is constantly increasing.

## TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

Third Series the Forty-Seventh—1925.

This volume of transactions contains the papers read before the College from January, 1925 to December, 1925 inclusive.

This interesting book contains a list of Presidents, Officers, Standing Committees, Fellows, Necrological List for 1925, List of Prizes and Lectures, A Memoir of Charles B. Penrose, M.D., by Edward Martin, M.D.; Dr. Penrose was born 1862; died 1925; followed by the Annual Address of the President, Dr. Thomas R. Nelson.

The newly elected president, Dr. Hobart Amory Hare, offers some suggestions to the Fellows for their consideration. These are matters relating to the college itself.

The remainder of the volume is occupied by papers read before the College by Fellows, of general interest to the profession, including papers read by distinguished authors by invitation, relating to general medicine. It is difficult to find a volume containing more carefully selected contributions.

## THE MEDICAL CLINICS OF NORTH AMERICA

Volume IX; Number 6; Octavo of 202 Pages, Including Complete Index of Volume IX; with 24 Illustrations; Price Per Clinic Year, Paper \$12, Cloth \$16 Net. W. B. Saunders, 1926.

This, the May number, includes the index for volume nine.

This is a Chicago number and begins with a clinic of Drs. Charles A. Elliott and Walter H. Nadler, under the title of the Management of Diabetis Mellitus Associated with Pulmonary Tuberculosis, a rather interesting combination of serious diseases. There must necessarily be some conflicting indications in regard to the treatment of the two diseases, and a case of this kind must include a very careful consideration of the two diseases to avoid harmful results from treatment.

Another interesting subject of similar character is presented by Drs. Solomon Strouse and P. A. Daly on Diabetis and Pregnancy.

Dr. Louis J. Pollock presents an interesting study of Neurological Diagnosis.

Dr. Ralph C. Hamill considers a series of fourteen cases under the head of Disability, Damages or Disease. These cases include industrial as well as medical problems. It sometimes appears that a working man is employed in some sort of industrial labor

when he has recently suffered a disease of some form and has not yet entirely recovered and so the relationship of the previous disease and an injury or the effects of the work must be taken into account in determining what relationship the several facts may bear to each other. The conflict of opinion that may grow out of this is considered by Dr. Hamill in this discussion.

A very important subject is presented by Dr. Harold A. Backmann on the Prevention of Heart Disease in Childhood. As we know many cases of heart disease in mature life have their inception in childhood.

One of the difficult subjects in medicine relates to Diseases of the Nervous System and these are sometimes difficult to diagnose and to distinguish one from the other. Dr. William H. Holmes has presented a series of cases in which the brain and spinal cord are involved.

Dr. Jacob Meyer considers a series of cases of Nephritis and discusses four types.

The May number is one of unusual interest and we have briefly referred to several clinics which may fairly illustrate the contents of the book. We may mention again the fact that this number contains index for volume nine.

## TRUTH ABOUT MEDICINES

## New and Non-Official Remedies

Scarlet Fever Antitoxin—Lederle (Unconcentrated).—A scarlet fever streptococcus antitoxin (Jour. A. M. A., May 2, 1925, p. 1338). It is prepared by immunizing horses by the subcutaneous injection of the toxic filtrate obtained by growing the scarlet fever streptococcus in broth; also by injection of cultures of the scarlet fever streptococcus. Each cc. neutralizes at least 10,000 skin test doses of scarlet fever toxin. Marketed in packages of one syringe containing 10 cc. and in packages of one cylinder containing 50 cc. with an intravenous injection outfit. Lederle Antitoxin Laboratories, New York.

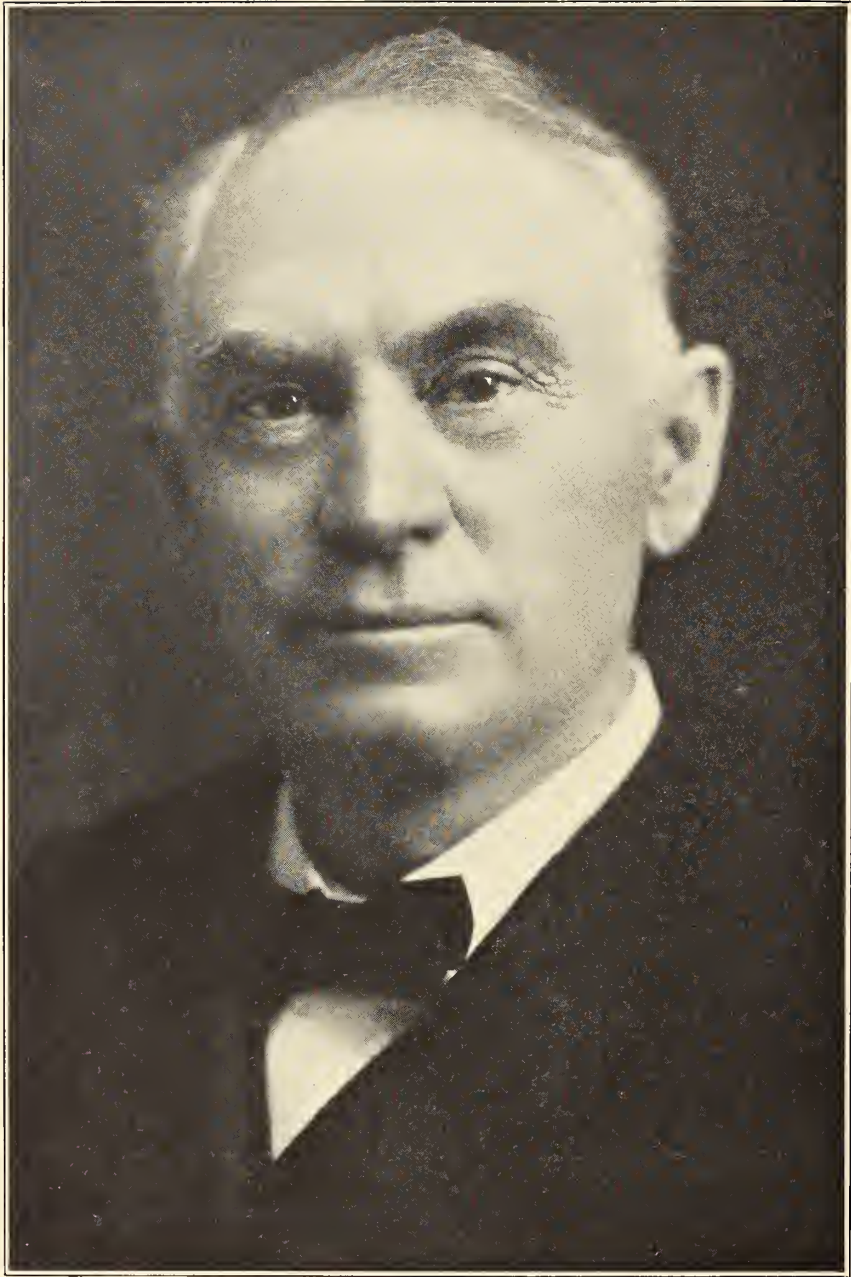
Loeblund's Malt Extract.—A preparation essentially similar to extract of malt U. S. P. It is marketed as Loeblund's malt extract with calcium (containing calcium lactophosphate 0.5 per cent) and Loeblund's malt extract with cod liver oil (Norwegian cod liver oil 33 per cent). Britt, Loeffler & Weil, New York, distributor. (Jour. A. M. A., July 11, 1925, p. 115.)

Neosalvarsan Dose XII.—Each tube contains neosalvarsan (New and Non-official Remedies, 1925, p. 50), 1.8 gm. H. A. Metz Laboratories, Inc., New York.

Schick Test—Lilly.—Diphtheria Immunity Test (Schick Test) (New and Non-official Remedies, 1925, p. 50) is also marketed in packages of two vials, one containing diphtheria toxin sufficient for fifty tests and the other vial containing the proper amount of diluent. Eli Lilly and Co., Indianapolis. (Jour. A. M. A., July 25, 1925, p. 269.)







Thomas F. Powers, M.D.  
President  
Iowa State Medical Society  
1926-1927

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, APRIL, 1927

No. 4

## IOWA STATE MEDICAL SOCIETY ORGANIZED 1850

### *Seventy-Sixth Annual Session*

COUNCIL BLUFFS — MAY 11, 12, 13, 1927

Meeting Place and Headquarters  
Hotel Chieftain  
Pearl Street and First Avenue

Registration Bureau  
Mezzanine Floor, Hotel Chieftain

### *Program*

#### OPENING EXERCISES

Wednesday, May 11  
8:30 a. m.

Call to Order by the President—  
THOMAS E. POWERS, M.D., Clarinda

Invocation— REV. JACOB R. PERKINS, Council Bluffs  
Pastor, First Congregational Church

Address of Welcome for the City—  
HON. EMMET TINLEY, Council Bluffs

Address of Welcome for the Profession—  
WILLIAM P. HOMBACH, M.D., Council Bluffs  
President Pottawattamie County Medical Society

Response— WALTER L. BIERRING, M.D., Des Moines

Gavel Presentation— FRANK M. FULLER, M.D., Keokuk

#### SCIENTIFIC PROGRAM

##### Section Chairmen and Reporters

Section on Medicine—  
Chairman, JAMES S. GAUMER, M.D., Fairfield

Section on Surgery—  
Chairman, CHARLES H. MAGEE, M.D., Burlington

Section on Ophthalmology, Otology and Rhinology—  
Chairman, CHARLES B. TAYLOR, M.D., Ottumwa

Official Reporter, General Session—  
MISS ADELAIDE FOLSOM, Ripon, Wisconsin

Reporter, House of Delegates—  
MRS. MARIE REYES, Des Moines

Wednesday, May 11  
9:00 a. m.

1. The Relation of the Health Department to the Practicing Physician—  
HENRY ALBERT, M.D., Des Moines, *twenty minutes*  
Discussion opened by DANIEL C. STEELSMITH, M.D., Dubuque, *five minutes*
2. A First Aid Station in the Country—  
WILLIAM F. AMDOR, M.D., Carbon, *twenty minutes*  
Discussion opened by FRANK E. SAMPSON, M.D., Creston, *five minutes*
3. What Are We Doing with Cervical Carcinoma?—  
KENNETH I. JOHNSTON, M.D., Oskaloosa, *twenty minutes*  
Discussion opened by WILLIAM JEPSON, M.D., Sioux City, *five minutes*
4. Extrophy of the Bladder—  
THOMAS F. E. BESS, M.D., Fort Madison, *twenty minutes*  
Discussion opened by DONALD MACRAE, JR., M.D., Council Bluffs, *five minutes*
5. Some Viewpoints on Senility—  
RALPH S. LOVELADY, M.D., Sidney, *twenty minutes*  
Discussion opened by GEORGE DONOHUE, M.D., Cherokee, *five minutes*

Wednesday, May 11  
1:30 p. m.

6. Some Fundamentals in Education—  
CHARLES H. MAGEE, M.D., Burlington, Chairman Surgical Section, *twenty minutes*
7. Indication for Treatment of Duodenal Ulcer—  
LESTER D. POWELL, M.D., Des Moines, *twenty minutes*  
Discussion opened by PAUL A. WHITE, M.D., Davenport, *five minutes*



8. Address in Surgery: Plastic Surgery of the Present Day as Related to Practitioners of General Surgery and Medicine and the Layman—  
(Lantern Demonstration)  
GEORGE V. I. BROWN, M.D., Milwaukee
9. The Present Status of Treatment of Syphilis of the Central Nervous System—  
JOHN I. MARKER, M.D., Davenport, *twenty minutes*  
Discussion opened by WILLIAM E. ASH, M.D., Council Bluffs, *five minutes*
10. Tuberculosis Complicated by Syphilis; Report of Case—  
GEORGE W. KOCH, M.D., Sioux City, *twenty minutes*  
Discussion opened by HERBERT V. SCARBOROUGH, M.D., Oakdale, *five minutes*

3:30 p. m.

Meeting—House of Delegates  
Elks Club

### Wednesday Evening, May 11

Social Entertainment

Banquet—Hotel Chieftain  
Six-thirty O'clock  
Physicians, their wives and guests

### Thursday, May 12

9:00 a. m.

11. Head Injuries—  
NELSON MCP. WHITEHILL, M.D., Boone, *twenty minutes*  
Discussion opened by FRANCIS E. HOLBROOK, M.D., Des Moines, *five minutes*
12. Malta Fever—  
LEE R. WOODWARD, M.D., Mason City, *twenty minutes*  
Discussion opened by ALBERT V. HARDY, M.D., Iowa City (by invitation), *five minutes*
13. Operations for Prolapsus Uteri in Patients Past the Menopause—  
CORAL R. ARMENTROUT, M.D., Keokuk, *twenty minutes*  
Discussion opened by CHARLES J. ROWAN, M.D., Iowa City, *five minutes*
14. The Diagnosis and Treatment of Sterility—  
NORMAN MILLER, M.D., Iowa City, *twenty minutes*  
Discussion opened by LAWRENCE E. KELLEY, M.D., Des Moines, *five minutes*
15. The Etiology and Treatment of Chronic Empyema—  
HOWARD L. BEYE, M.D., Iowa City, *twenty minutes*  
Discussion opened by WILLIAM W. BOWEN, M.D., Fort Dodge, *five minutes*
16. Our Maternal Mortality—  
FLOYD W. RICE, M.D., Des Moines, *twenty minutes*  
Discussion opened by EVERTT D. PLASS, M.D., Iowa City, *five minutes*

### Thursday, May 12

1:30 p. m.

17. Hemangiosarcoma (Endothelioma) of the Spinal Cord—  
JOHN C. HANCOCK, M.D., Dubuque, *twenty minutes*  
Discussion opened by FRANK A. ELY, M.D., Des Moines, *five minutes*

### Symposium: Heart Disease

18. Incidence, Etiology and Economic Aspects—  
JAMES S. GAUMER, M.D., Fairfield, Chairman Medical Section, *twenty minutes*
19. Symptoms of Heart Disease; A Study of One Thousand Patients—  
MERRILL M. MYERS, M.D., Des Moines, *twenty minutes*
20. Treatment of Cardiac Failure—  
VERNE C. GRABER, M.D., Iowa City, *twenty minutes*  
Discussion of paper number eighteen opened by PAUL W. VAN METRE, M.D., Rockwell City, *five minutes*  
Discussion of paper number nineteen opened by EZRA L. WURTZER, M.D., Clear Lake, *five minutes*  
Discussion of paper number twenty opened by JOHN H. PECK, M.D., Des Moines, *five minutes*
21. Address in Medicine: Disorders of the Blood—  
JOHN H. MUSSER, JR., M.D., Professor of Medicine, Tulane University of Louisiana, School of Medicine, New Orleans
22. Preparation of Patients for Operation—  
FRANCIS K. BURNETT, M.D., Clarinda, *twenty minutes*  
Discussion opened by JOHN E. O'KEEFE, M.D., Waterloo, *five minutes*
23. The Pre and Post-Operative Treatment of Major Surgical Cases—  
ELIAS B. HOWELL, M.D., Ottumwa, *twenty minutes*  
Discussion opened by JOHN F. HERRICK, M.D., Ottumwa, *five minutes*

### Thursday Evening, May 12

8:00 p. m.

24. President's Address—  
THOMAS E. POWERS, M.D., Clarinda
25. Address: Suppurative Diseases of the Lung; A Demonstration of Cases at the Bronchoscopic Clinic—  
(Lantern Slide and Moving Picture Demonstration)  
GABRIEL TUCKER, M.D., Demonstrator of Bronchoscopy, Jefferson Medical College, and Associate Professor of Bronchoscopy and Esophagoscopy, Graduate School of Medicine, University of Pennsylvania, Philadelphia; Guest of Section on Ophthalmology, Otology and Rhinolaryngology.

Buffet Luncheon and Smoker following  
Scientific Program

### Friday, May 13

9:00 a. m.

26. Narrowing the Surgical Risk—  
WARREN E. MCCRARY, M.D., Lake City, *twenty minutes*  
Discussion opened by J. FRED CLARKE, M.D., Fairfield, *five minutes*
27. Clinical End Results in Glandular Therapy—  
JOHN F. RITTER, M.D., Maquoketa, *twenty minutes*  
Discussion opened by DAVID N. LOOSE, M.D., Maquoketa, *five minutes*
28. Treatment of Tumors of the Bladder by Means of Surgical Diathermy—  
ABRAHAM G. FLEISCHMAN, M.D., Des Moines, *twenty minutes*  
Discussion opened by JENNINGS CRAWFORD, M.D., Cedar Rapids, *five minutes*

## 29. Otitis Media in Infancy; Its Significance and Recognition—

JACK V. TREYNOR, M.D., Council Bluffs, *twenty minutes*  
Discussion opened by FRANK W. DEAN, M.D., Council Bluffs, *five minutes*

## 30. Some Much Neglected Conditions of the Rectum and Their Treatment—

GEORGE W. FRANKLIN, M.D., Jefferson, *twenty minutes*  
Discussion opened by HOWARD D. GRAY, M.D., Des Moines, *five minutes*

## 31. Report of the Transactions of the House of Delegates—

TOM B. THROCKMORTON, M.D., Secretary, Des Moines

## OPHTHALMOLOGY, OTOLOGY AND RHINOLARYNGOLOGY

Meeting Place—Library, Council Bluffs Clinic  
Chairman, Charles B. Taylor, M.D., Ottumwa

Thursday, May 12

9:00 a. m.

## 1. Radical Maxillary Sinus Operation and After Treatment—

ROYAL F. FRENCH, M.D., Marshalltown

## 2. Thermophore in the Treatment of Corneal Ulcer—

JOHN E. ROCK, M.D., Davenport

## 3. Notes on Refraction—

CECIL S. O'BRIEN, M.D., Iowa City

## 4. Some Rhinological Observations—

WILLIAM W. PEARSON, M.D., Des Moines

## 5. Observations on Maxillary Sinus Infections—

JESSE B. NAFTZER, M.D., Sioux City

## 6. Cataract Operations Performed upon Patients in their Own Beds—

FRED W. BAILEY, M.D., Cedar Rapids

Thursday, May 12

1:30 p. m.

## 7. Application of Protein Therapy in Affections of the Eye—

ADAM B. FAIR, M.D., Ottumwa

## 8. Advantages of the Barraquer Method in Immature and Hypermature Cataract—

OTIS WOLFE, M.D., Marshalltown

## 9. The Relation of the Thymus Gland to the Throat Specialist; A Study of Forty Cases—

HAROLD A. SPILMAN, M.D., Ottumwa

## 10. Systemic Conditions Influencing the Treatment of Sinus Infections and Otitis Media in Infants and Young Children—

LEE W. DEAN, M.D., Iowa City

## 11. Control of Hemorrhage Following Tonsil Operations—

WILLIAM H. JOHNSTON, M.D., Muscatine

## 12. Diagnosis and Treatment of Acute Mastoiditis and Its Complications—

JAY G. ROBERTS, M.D., Oskaloosa

## 13. The Etiology and Pathogenesis of Cholesteatoma—

RALPH H. PARKER, M.D., Des Moines

Gabriel Tucker, M.D., Associate Professor of Bronchoscopy and Esophagoscopy, Graduate School of Medicine, University of Pennsylvania and Demonstrator of Bronchoscopy, Jefferson Medical College, Philadelphia, will address the General Session Thursday Evening on the subject: Suppurative Diseases of the Lung; A Demonstration of Cases at the Bronchoscopic Clinic (Lantern Slide and Moving Picture Demonstration).

## MEETING PLACES

Headquarters—Hotel Chieftain, Pearl Street and First Avenue

General Meetings—Hotel Chieftain

House of Delegates—Elks Club

Eye, Ear, Nose and Throat Section—Library, Council Bluffs Clinic

Registration and Exhibits—Hotel Chieftain, Mezzanine Floor

Headquarters for Ladies—Hotel Chieftain

## Rules for Papers and Discussions

"No address before the Society, except those of the President and Guests, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes nor more than once on any subject." "All papers read before the Society shall be the property of the Society." (Excerpts from By-Laws.)

Each paper should be typewritten, and deposited with the Secretary when read; if this is not done, it will not be published.

On rising to discuss a paper, the speaker will please come forward and announce his name and address plainly.

## Registration

Do not fail to Register.

Please bring your membership card for presentation at Registration Desk.

## IOWA STATE MEDICAL SOCIETY OFFICERS AND COMMITTEES 1926-1927

President.....Thomas E. Powers, Clarinda  
President-Elect.....Michael J. Kenefick, Algona  
First Vice-President.....Frederick G. Murray, Cedar Rapids  
Second Vice-President.....Lester C. Kern, Waverly  
Secretary.....Tom B. Throckmorton, Des Moines  
Treasurer.....Addison C. Page, Des Moines

## COUNCILORS

Term expires

First District—George B. Crow, Burlington.....1930  
Second District—David N. Loose, Maquoketa.....1927  
Third District—Fred F. Agnew, Independence.....1931  
Fourth District—Paul E. Gardner, New Hampton, Chrm.....1929  
Fifth District—George E. Crawford, Cedar Rapids.....1928  
Sixth District—Samuel T. Gray, Albion.....1928  
Seventh District—Channing G. Smith, Granger, Secretary.....1929  
Eighth District—Fred A. Bowman, Leon.....1929  
Ninth District—Henry B. Jennings, Council Bluffs.....1927



Tenth District—Watson W. Beam, Rolfe-----1931  
Eleventh District—Giles C. Moorhead, Ida Grove-----1930

TRUSTEES

Oliver J. Fay, Des Moines, Chairman-----1928  
Vernon L. Treynor, Council Bluffs-----1927  
John F. Herrick, Ottumwa-----1929

DELEGATES TO A. M. A.

Donald Macrae, Jr., Council Bluffs-----1928  
Bert L. Eiker, Leon-----1928  
John C. Rockafellow, Des Moines-----1927  
William Jepson, Sioux City-----1927

ALTERNATE DELEGATES TO A. M. A.

Thomas A. Burcham, Des Moines-----1928  
John F. Herrick, Ottumwa-----1928  
Thomas F. Thornton, Waterloo-----1927  
Clyde A. Boice, Washington-----1927

STANDING COMMITTEES

MEDICO-LEGAL

David S. Fairchild, Sr., Chairman, Clinton-----1927  
Henry B. Jennings, Council Bluffs-----1928  
\*Henry C. Eschbach, Albia-----1929

SCIENTIFIC WORK

Thomas E. Powers-----Clarinda  
Tom B. Throckmorton-----Des Moines  
Addison C. Page-----Des Moines

PUBLIC POLICY AND LEGISLATION

William W. Pearson, Chairman-----Des Moines  
James F. Edwards-----Ames  
Thomas A. Burcham-----Des Moines  
Thomas E. Powers, Ex-Officio-----Clarinda  
Tom B. Throckmorton, Ex-Officio-----Des Moines

CONSTITUTION AND BY-LAWS

Vernon L. Treynor, Chairman-----Council Bluffs  
Charles B. Taylor-----Ottumwa  
Tom B. Throckmorton-----Des Moines

PUBLICATION COMMITTEE

David S. Fairchild, Sr., Editor-----Clinton  
Tom B. Throckmorton, Secretary-----Des Moines  
Oliver J. Fay, Trustee-----Des Moines  
Vernon L. Treynor, Trustee-----Council Bluffs  
John F. Herrick, Trustee-----Ottumwa

FINANCE

Ernest C. McClure, Chairman-----Bussey  
Daniel F. Houston-----Burlington  
Charles Ellyson-----Waterloo

ARRANGEMENTS

Thomas E. Powers-----Clarinda  
Tom B. Throckmorton-----Des Moines  
Addison C. Page-----Des Moines  
Vernon L. Treynor-----Council Bluffs  
Donald Macrae, Jr.-----Council Bluffs

SPECIAL COMMITTEES

MEDICAL LIBRARY

David S. Fairchild, Sr., Chairman-----Clinton  
Conrad R. Harken-----Osceola  
Felix A. Hennessy-----Calmar

MILITARY AFFAIRS

Donald Macrae, Jr., Chairman-----Council Bluffs  
Harold A. Spilman-----Ottumwa  
Earl B. Bush-----Ames

HOSPITAL COMMITTEE

Walter L. Bierring, Des Moines-----1929  
Fred M. Smith, Iowa City-----1928  
Frank E. Sampson, Creston-----1927

\*Deceased

ENTERTAINMENT

Wednesday, May 11

Luncheon for Visiting Ladies, Corn Room, Hotel Chieftain, One O'clock. Following Luncheon Memory Drive to Rainbow Point.  
Banquet, Hotel Chieftain, physicians, their wives and guests, Six-Thirty O'clock

Thursday, May 12

Garden Party for Visiting Ladies at the home of Mrs. Donald Macrae, Jr., Two to Five O'clock  
Bridge Party, Visiting Ladies at the home of Mrs. Donald Macrae, Jr., Eight O'clock  
Luncheon and Smoker in Evening following Scientific Program

Men's Committee

WILLIAM E. ASH, M.D., Chairman  
JACK V. TREYNOR, M.D. SNYDER D. MAIDEN, M.D.

Ladies' Committee

MRS. DONALD MACRAE, JR.  
MRS. V. L. TREYNOR MRS. A. V. HENNESSEY

SECURE HOTEL RESERVATIONS EARLY

Hotel Chieftain  
Headquarters

Rooms with bath, single-----from \$2.00 to \$3.00  
Rooms with bath, double-----from \$3.00 to \$5.00  
(Each additional occupant \$1.50 extra)  
Rooms without bath, single-----from \$1.50 to \$1.75  
Rooms without bath, double-----from \$2.50 to \$3.00

New Ogden Hotel

Rooms without bath-----\$1.00 \$1.50 \$2.00

Neumayer Hotel

Rooms without bath-----\$.75 \$1.00 \$1.25

Goodrich Hotel

Rooms with bath-----from \$1.50 to \$2.00  
Rooms without bath-----from \$1.00 to \$1.50

Fontenelle Hotel

Rooms with bath-----\$3.00 and up

Rome Hotel

Rooms with bath-----from \$2.00 to \$3.00  
Rooms without bath-----from \$1.50 to \$1.75

Those desiring reservations, write directly to Dr. Frank Earl Bellinger, Chairman Housing Committee or to the hotel selected by applicant.

TAKE DUE AND TIMELY NOTICE

Your 1927 membership card will be your mark of eligibility to register at the Seventy-Sixth Annual Session, Council Bluffs, May 11, 12 and 13. Have you paid your 1927 dues to your local Secretary?

STATE SOCIETY  
IOWA MEDICAL WOMEN

THIRTIETH ANNUAL MEETING  
COUNCIL BLUFFS

Tuesday, May 10, 1927

Headquarters—Hotel Chieftain

Meeting Place—Council Bluffs Clinic

Morning Session  
9:00 a. m.

Library—Council Bluffs Clinic

Welcome—

MRS. JOHN GALVIN, Past President, Visiting Nurses  
Association

Clinic— Council Bluffs Medical Women

President's Address—Focal Infection with Relation  
to Nose and Throat Infection

Appointment of Committees

Annual Business Meeting

11:00 a. m.

Luncheon—Terrace Cafe, Hotel Chieftain  
(Guests of Council Bluffs Medical Women)

Afternoon Session  
2:00 p. m.

Secondary Anaemia and Treatment—  
JEAN JONGEWAARD, M.D., Ames, *twenty minutes*  
Discussion opened by MARY L. TINLEY, M.D., Council  
Bluffs, *five minutes*

Address: Perfection in Small Things—  
BERTHA VAN HOESEN, M.D., Chicago

Diseases of the Liver and Gall Bladder—  
ROSE WISTEIN, M.D., Cedar Rapids, *twenty minutes*  
Discussion opened by EMMA ACKERMAN, M.D., Sioux City,  
*five minutes*

The State Medical Library—  
MISS FRANCES B. VAN ZANDT, State Medical Librarian, Des  
Moines, *twenty minutes*

Hospitals of South America—  
NELLE S. NOBLE, M.D., Des Moines, *twenty minutes*

Unfinished Business

Dinner—Beaux Arts Room, Hotel Chieftain  
Theater Party  
(Guests of Council Bluffs Medical Women)

OFFICERS

President ..... GRACE DOANE, M.D., Des Moines  
Vice-President ..... C. ERICKSEN HILL, M.D., Council Bluffs  
Secretary ..... NELLE S. NOBLE, M.D., Des Moines  
Treasurer ..... MARY L. TINLEY, M.D., Council Bluffs

COMMITTEES

Credentials

JANE WRIGHT, M.D. ELEANOR HUTCHINSON, M.D.  
EMMA ACKERMAN, M.D.

Ethics

PAULINE M. LEADER, M.D. ROSE BUTTERFIELD, M.D.  
MARY ROSS, M.D.

Publication

ROSE WISTEIN, M.D. JULIA HILL, M.D.  
EDNA SEXSMITH, M.D.

Federation

SOPHIE HINZE SCOTT, M.D. ROLLETTA O. JOLLY, M.D.  
JEANNETTE F. THROCKMORTON, M.D.

Constitution and By-Laws

HELEN JOHNSTON, M.D. EPPIE S. MCCREA, M.D.  
EMMA JEWEL NEAL, M.D.

Arrangements

C. ERICKSON HILL, M.D. MILDRED BUZZA, M.D.  
HARRIETT HAMILTON, M.D. MARY L. TINLEY, M.D.

Districts

ALICE H. HATCH, M.D. CLARA Y. EIRLY, M.D.  
ZELLA W. STEWART, M.D. MYRTLE GRIFFIN, M.D.

THE COUNCIL BLUFFS SESSION

With the celebration of the Diamond Jubilee Anniversary in Des Moines last year, the Iowa State Medical Society passed the three-quarter century mark in its history. No one who attended the meeting will gainsay that the Society did not fittingly and properly do credit to its seventy-fifth birthday. While perhaps a similar celebration will not be attempted until the century mark of the Society is reached, still it is well to remember that Annual Sessions are yet to be held until that time is at hand, and that the coming session in May is to be at Council Bluffs.

Many years have elapsed since the medical profession of Iowa met in the beautiful city of Council Bluffs, historically famous on account of its Indian traditions and stories. But the Pottawattamie County Medical Society was so cordial and sincere in its invitation last year that the House of Delegates was only too happy to comply with the wish of the local society, and hence Council Bluffs was accordingly selected as the meeting place of the Society for this year. The local arrangement committee, together with various other committees, has been hard at work during the past weeks and months in anticipation of the needs of the visiting profession. The Hotel Chieftain—selected as the headquarters of the Society—but recently has been opened, and is a credit, not alone to the city, but to all southwestern Iowa as well. The hostelry managements of the city have assured cooperation in every way possible to care for, and to make comfortable, those in attendance at the meeting.

APPLY FOR CERTIFICATE WHEN BUYING RAILROAD TICKET



The general meetings will be held in the Ball Room of the Hotel Chieftain, with registration desks for members and guests just outside on the mezzanine floor. The House of Delegates will hold its meetings in the Elks Club Rooms, situated alongside the Hotel Chieftain, while the meeting place for the Section on Ophthalmology, Otology and Rhinolaryngology has been arranged for in the library of the Council Bluffs Clinic, which building is situated just two doors from the hotel and is the companion building to the Elks Club. Thus the environment of the meeting places—general, delegate, and special—is a happy one, and makes for convenience one of the best the Society has ever had.

The Scientific Committee, together with the Section Chairmen, has endeavored to prepare a program in keeping with those of past years. The committee believes that the Iowa State Medical Society is, and was created, for the benefit of its members and that members of the profession should be responsible for the character and quality of its yearly programs. Accordingly, as in former time, guests were invited to address the Society on the special lines of Medicine, Surgery, and the specialties pertaining to Eye, Ear, Nose and Throat. To this end the committee takes pleasure in announcing that exceptionally good men responded to the invitations, and that a real treat awaits those in attendance at the meeting.

John H. Musser, Jr., M.D., Professor of Medicine, Tulane University of Louisiana, School of Medicine, New Orleans, will deliver the Address on Medicine. Doctor Musser comes from a long line of physicians, famed for their work in medicine in that great medical center, Philadelphia. That the youngest of this illustrious family should have created already an enviable reputation for himself in his chosen field of labor is no surprise to those fortunate enough to know something of the ancestry from which this distinguished guest comes. That the junior Musser will live up to the reputation of his forebearers, and present something of practical and helpful value to the Society, goes without saying.

George V. I. Brown, M.D., Milwaukee, needs no introduction to the medical profession of the middle west, let alone that of the Hawkeye State. Those who have attended the meetings of the Tri-State District Medical Society will at once recall Doctor Brown, the amiable, affable, punctual, precise, on-the-minute, clinic director, the man who makes the clinical wheels of that far-famed institution go around. This distinguished guest will deliver the Address on Surgery. Surgeons, especially interested in deformities and malformations of the face and jaws, will recognize at once the happy choice of the committee and its good fortune in obtaining Doctor Brown's consent to be present on this occasion. Great credit is due this skillful and pioneer worker in his special line of surgery, and a real treat awaits those fortunate enough to be in attendance at the time his address is delivered.

For many years, the Iowa profession has been favored by the top-notchers and real leaders in the specialties pertaining to the departments, Eye, Ear, Nose and Throat. de Schweinitz, Shambaugh, Gifford, Jackson, Lillie, Mayer, Holloway, Goldstein, and others have seen fit to honor our Society with their presence in the past. Of no less distinction is the guest of this year, Gabriel Tucker, M.D., of Philadelphia. Under the tutelage of the bronchoscopic master of the world, Professor Chevelier Jackson, Jefferson Medical College, Philadelphia, Doctor Tucker comes to us as a polished and perfected end-result of that wonderful clinic which is connected with the Jefferson Medical College Hospital and the Graduate School of Medicine, University of Pennsylvania. Members of our profession, particularly those interested in the head specialties, will recognize at once the wonderful opportunity that is theirs in having so able and so distinguished a guest as Doctor Tucker with them in their section on Thursday, while an extraordinary treat awaits those present when this guest delivers his address before the general session.

In building up the program around these guests, those responsible endeavored to select members not only for their scientific ability, but from a geographical standpoint as well. Only those, who have served as a member of the Scientific Committee, can understand the difficulties which beset on every hand those responsible for the yearly programs of our State Society. Gradually the older members—the old wheel-horses—scattered here and there over the state, are becoming reticent about appearing on the program, and younger men of literary ability, no longer locating in the smaller villages, increase the difficulties of the committee in attempting a wide geographical distribution of program participants. Many disappointments are accordingly encountered each year before a perfected and complete program is possible, but the committee offers no apology—because none is needed—for the program of the Seventy-sixth Annual Session of the Iowa State Medical Society.

And in conclusion, remember all roads—both rail and dirt—lead to Council Bluffs; certificates, applied for to the railroads for reduced fare, have been granted, so get your certificate of the agent when purchasing your ticket; hotel reservations should be made early to avoid disappointment; and that the success of this coming meeting will be in proportion to the enthusiasm and interest each member contributes.

Tom B. Throckmorton,  
Secretary.

---

#### TAKE DUE AND TIMELY NOTICE

Your 1927 membership card will be your mark of eligibility to register at the Seventy-Sixth Annual Session, Council Bluffs, May 11, 12 and 13. Have you paid your 1927 dues to your local Secretary?

## COUNCIL BLUFFS

This history of Council Bluffs goes back to the beginning of the nineteenth century, when the Lewis and Clark expedition, sent out by President Jefferson in 1804, held a council with the Indians there in August of that year. From this incident the city derives its name. The Lewis and Clark council not only gave the city its name, but its records seem to be the first written history of the country we now know as western Iowa. The Journal of one of the members narrates the meeting with the Indians and describes the broad bottoms and high bluffs and jungles abounding with wild grapes and alive with wild turkey and other game.

Nearly forty years later conditions were very much the same when the Pottawattamie Indians, escorted by a troop of cavalry, were brought to the reservation there by the government. The county took its name from the tribe. In 1846 the Pottawattamies sold their land to the government. Then came the invasion of the Mormons, a period of pioneer hardships that only religious zealots could endure. Following in 1849, was the discovery of gold in California and the wave of immigration to the West. Council Bluffs, then called Kanesville, teemed with gold seekers, who came here to join caravans trekking toward the West. This was a picturesque and hectic period in the city's history, but with the exodus of the Mormons and the subsidence of the gold craze, Council Bluffs began to develop in the fashion of pioneer days.

Then the railroads began coming, first from the south, then the northeast, and finally the great Union Pacific started from this point for its penetration of the mountains to the Pacific coast under the master hand of that Council Bluffs genius, General G. M. Dodge. Now, you may climb aboard a Pullman in Council Bluffs and without change of train, visit any one of fourteen states of the West and two Canadian provinces. Council Bluffs can be reached by a short ride across the river from Omaha. A historian, describing the country which the soldiers and Indians they had brought with them beheld upon their arrival, writes: "It is doubtful if the landscape revealed to Moses from the top of Pisgah, extending from the cedars of Lebanon to the palm trees of Zoar, equaled in beauty that of Pottawattamie county as viewed from the summits of these bluffs. Though not possessing the awful grandeurs of mountain scenery, for natural beauty it is doubtful if it can be excelled on this little world of ours. To the north the bluffs almost assume the dignity of mountains, visible for forty miles. To the south they roll away until they appear blue in the distance. At your feet lie the broad bottom lands, compared with which, for fertility, the valley of the Nile is a desert. While beyond the intervening vast natural meadow, sweeps the great Missouri in graceful curves until lost in the curvature of the earth."

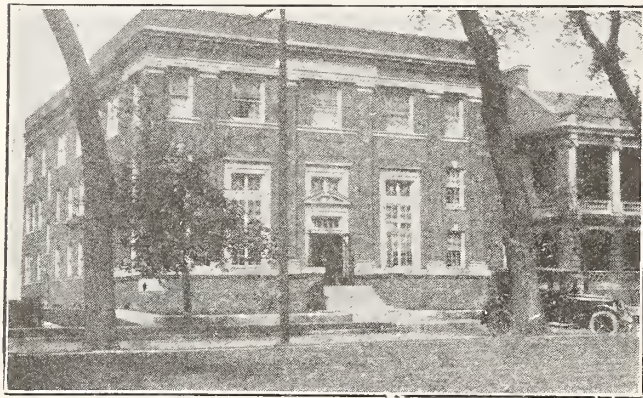
If you have ever been over the Rainbow drive and stood at Rainbow point—an experience which no visitor to Council Bluffs should miss—you will understand why the historian was so enthusiastic in his



HOTEL CHIEFTAIN  
Headquarters and General Meeting Place



comment on the natural beauty of the place. Rainbow drive is a memorial to the boys of the Rainbow Division in the World War. It skirts the hills north of the city, gradually ascending to the highest point, nearly every rod of the way giving wonderful glimpses of the hills and the Missouri Valley. If you are fortunate enough to take the drive near



COUNCIL BLUFFS CLINIC BUILDING  
Meeting Place Eye, Ear, Nose and Throat Section

sunset in the summer or fall, you will see the most gorgeous coloring imaginable. Budapest is said to be the most beautiful city in Europe and travelers say the view of the two cities here from Omaha reminds them of the two Hungarian cities.

Council Bluffs has two standardized hospitals with a combined capacity of over three hundred beds, the Mercy and the Jennie Edmundson Memorial. St. Bernard's Hospital has a capacity of three hundred and fifty beds for the care of mental and nervous diseases. Council Bluffs is one of the most accessible cities in Iowa from the standpoint of railroads. One can leave most cities of any size in the states for Council Bluffs without changing cars.

## SECURE RAILROAD CERTIFICATES

### Important Notice to Members

A reduction of one and one-half for the round-trip on the "Certificate Plan" will apply for members (also dependent members of their families) attending the Annual Session of the Iowa State Medical Society to be held at Council Bluffs, Iowa, May 11, 12 and 13. The arrangements will apply from the following territory: Iowa.

Dates of sale: May 7-13.

Final honoring date: May 17, 1927.

Railway secretary: Dr. Tom B. Throckmorton, secretary, 902 Bankers Trust building, Des Moines, Iowa.

Joint agent: Ticket agent, C. B. & Q. R. R., Council Bluffs, Iowa, will validate certificates on May 11-17, inclusive.

Note: Minimum attendance requirement, 150.

The following directions are submitted:

1. Tickets at the normal one-way tariff fare for the going journey may be bought on any of the following dates (but not on any other date) May 7 to 13.

2. Be sure when purchasing your going ticket to ask the ticket agent for a certificate. Do not make the mistake of asking for a receipt. If, however, it is impossible to get a certificate from the local ticket agent, a receipt will be satisfactory and should be secured when ticket is purchased. See that the ticket reads to the point where the convention is to be held and no other. See that your certificate is stamped with the same date as your ticket. Sign your name to the certificate or receipts in ink. Show this to the ticket agent.

3. Call at the railroad station for ticket and certificate at least thirty minutes before departure of train.

4. Certificates are not kept at all stations. Ask your home station whether you can procure certificates and through tickets to the place of meeting. If not, buy a local ticket to nearest point where a certificate and through ticket to place of meeting can be bought.

5. Immediately upon your arrival at the meeting, present your certificate to the endorsing officer, Dr. Tom B. Throckmorton, as the reduced fare for the return journey will not apply unless you are properly identified as provided for by the certificate.

6. No refund of fare will be made on account of failure to either obtain a proper certificate, or on account of failure to have the certificates validated.

7. It must be understood that the reduction for the return journey is not guaranteed, but is contingent on an attendance of not less than 150 members of the organization and dependent members of their families at the meeting holding regularly issued certificates from ticket agents at starting points showing payment of normal one-way tariff fare of not less than 67 cents on the going trip.

8. If the necessary minimum of 150 regularly issued certificates are presented to the joint agent, and your certificate is validated, you will be entitled to a return ticket via the same route as the going journey at one-half of the normal one-way tariff fare from place of meeting to point at which your certificate was issued up to and including May 17, 1927.

9. Return tickets issued at the reduced fare will not be good on any limited train on which such reduced fare transportation is not honored.

Tom B. Throckmorton,  
Secretary.

## TAKE DUE AND TIMELY NOTICE

Your 1927 membership card will be your mark of eligibility to register at the Seventy-Sixth Annual Session, Council Bluffs, May 11, 12 and 13. Have you paid your 1927 dues to your local Secretary?





President and Past Presidents of the Iowa State Medical Society present at the  
Diamond Jubilee Anniversary at Des Moines, May 12, 13, 14, 1926

John N. Warren, 1918; Max E. Witte, 1919; John F. Herrick, 1917; Chas. J. Sanders, 1923, Oliver J. Fay, 1924

Donald Macrae, Jr., 1921; Henry C. Eschbach, 1915; Vernon L. Treynor, 1913; George E. Crawford, 1910; M. Nelson Voldeng, 1911

Walter L. Bierring, 1908; Henry B. Young, 1899; Smith A. Spilman, President; Lewis Schooler, 1894; David S. Fairchild, 1896; William Jepson, 1906  
Frank M. Fuller, 1925





## SURGICAL CLINIC—PELVIC AND ABDOMINAL\*

JOHN BLAIR DEAVER, M.D., Philadelphia

John C. Rockafellow, M.D., Des Moines,  
Chairman

CASE I. Woman, age twenty-six, married housewife.

History. "Tumor of abdomen." Family history contains nothing of significance. Menstruation began at fifteen; always irregular until last child was born and since then rather scanty. No dysmenorrhea or leukorrhea. Last menses began March 11, 1926, normal. Previous medical history of no special moment. Usual diseases of childhood. In 1925 patient had operation for ovarian cyst, and since this operation the patient has not felt well. Last December she noticed that she could not lie on her right side because of a tugging pain in the left lower quadrant of the abdomen. She then noticed a mass in the left lower abdomen which has progressively increased in size until now it is that of a full-term pregnancy, and has remained stationary for about six weeks. Although there has been some pain along the left side, it is a sensation of pressure in the abdomen which is most annoying especially when the patient is up and about. She is also very nervous and finds relief only by rest. For that reason she has been in bed for the last three or four months. Appetite and digestion good except for occasional nausea; no vomiting. Bowels are regular without cathartics. Occasional nocturia; occasional dizzy spells, otherwise general bodily functions are normal. There is a slight peripheral edema.

Physical examination: Abdomen greatly enlarged, resembling a full-term pregnancy. There is a scar of a midline incision in the hypogastrium. Large tumor mass palpable and is multi-ocular in outline.

Urinalysis: Practically negative. Blood count normal.

X-ray of gastrointestinal tract shows a definite filling defect on the left side of the greater curvature of the stomach. The stomach is pushed upward and to the right; duodenal cap not shown.

The entire condition is probably due to gastric or intragastric pressure, but it is not due to the presence of this mass. You see the enlargement here, the midabdomen especially is quite enlarged. As you palpate the abdomen you at once detect very evident fluctuation, which is

diffused from this point downwards. On the left side there is a rather hard mass extending below the anterior superior spine well up to the chest margin, with distinct resonance between. There isn't any enlargement on the left side that corresponds to that on the right side. Percussion between the two axillary lines and over the spine, corresponding to the ninth, tenth and eleventh ribs, does not elicit any increased dullness. There is a mass situated centrally.

This woman is the mother of two children, and dates her trouble from the birth of the last child. Unfortunately, we have not been able to obtain a pathological report of the ovarian cyst removed in 1925. There isn't any doubt about it that the report is correct in the sense that she had an ovarian cyst, but no mention is made of the type of cyst, whether it was a simple cyst or whether a type of cystic degeneration, classified under the head of papillary cyst carcinoma. We have these masses on the right side and one mass located on the left with a large amount of fluid. The vaginal touch is not definite at all. There is no trouble in making out the uterus. High up there is some rigidity in the fornix and a sense of resistance. That mass that was taken out was probably a carcinomatous cyst and there is now an extension of the process. This patient has been tapped and a large number of leucocytes were found in the fluid; in other words, a little infection. The patient made a remark to me before we came in that I can repeat. She said, "I did not have that fluid before I was x-rayed". I replied, "The x-ray has done you good". I know what she had in mind. The practical point is, is there a connection between this fluid and the x-ray? I believe that the x-ray under certain conditions (I do not mean in this instance) does a good deal more harm than good, and therefore if we could make our hindsight our foresight we would be pretty wise guys. But we are not wise because we do not know as much before the event as we often know after it. My x-ray friends will not like to hear me say this perhaps, but I am sometimes just a little bit skeptical about deep x-ray therapy, particularly in carcinoma. I could cite a number of instances. I have one in mind, the case of a young woman upon whom I had operated for appendicitis and had also taken out the uterus. She walked into my office one morning with a very much enlarged breast. It depressed me very much to see her in that plight. When I had finished examining her I was in doubt as to the precise nature of the trouble and therefore I knew about as much as before. I hesitated to take off the breast. I

\*Clinical Address given at Diamond Jubilee Anniversary of Iowa State Medical Society, Des Moines, Iowa, May 12, 13, 14, 1926.



sent her to an x-ray specialist and he called me up and said he thought it was a benign affair which he believed could be dissipated with x-ray treatment. In six weeks she came to see me with the breast perfectly normal to touch and sight. After a time her doctor called me up and said, "Elizabeth has a very painful neuritis in her lower extremities, what would you do about it?" I told him to send her to my office and let me look her over, saying it may not do much good but wouldn't do any harm. To my astonishment she had an abdominal tumor as large as a good-sized grapefruit. She rapidly went down hill and died within six weeks. The autopsy reported carcinoma of the cervix. Her husband came to me and said, "I am not reflecting upon anyone, I approve of everything that has been done because I believe she has been in good hands, but I have a little inkling that that x-ray treatment had something to do in precipitating my wife's condition". I said, "Just disabuse your mind of that, for while it might occur I don't think so. However, she had a condition of affairs that would have terminated her life under any conditions". But there is a question in my mind. That breast was, I believe, the seat of carcinoma without any physical evidence of induration, the x-ray dissipated it and within six weeks she had the same condition in the abdomen. I feel that there is something in the assumption that here the abdominal ascites may be the result of deep x-ray therapy.

CASE II. The first thing is to get your patient under your thumb. I had a little interview with this patient outside and she said that when she came to Des Moines she was anxious for operation. We can say to her that she hasn't anything seriously wrong and this is the reason that she has that charming smile.

History. Female; age thirty years; married fifteen years; occupation housewife. Chief complaint: pain in the left flank and swelling of the abdomen, (an entirely different case from the one just dismissed). Father died of accident, mother living at age of fifty-four, and has gall-bladder disease. One sister living and well. Has one child fourteen years old. One miscarriage ten years ago. P.M.H. Diphtheria at fourteen, pleuro-pneumonia at twenty-three, rheumatism in both knees at twenty-six, being confined to bed for three weeks. Still has occasional rheumatic pains in the smaller joints but only with change of weather. No history of tonsillitis.

M.H. Began at twelve. Until the onset of her present illness, five years ago, she never had dysmenorrhea but since then has had severe

cramps resembling labor pains which begin one-half to one hour before menstruation and are relieved by free onset of the flow. This dysmenorrhea is variable in intensity, but at times is severe enough to cause her to go to bed. No intermenstrual discharge. At times heavy lifting causes a gush of odorless watery blood which comes on without any warning and lasts a few hours and then disappears spontaneously. Having done no heavy work for the past year she has had none of these spells.

Present Illness. Five years ago she had an attack of high fever, recurrent chills, pain in both lumbar regions and in epigastrium. No nausea or vomiting. She had just finished menstruating and so was told by her physician that she was about to miscarry. Upon further examination he told her she was about three months pregnant and he could hear the fetal heart sounds. (That beats us in Philadelphia. We will have to take our hats off to the West. Years ago we had a very distinguished physician in Philadelphia, some of the older men here will recall him, the late J. M. Da Costa, one of the greatest teachers of the world. On one of his morning visits to the Pennsylvania Hospital the intern said, "What is that sound?" "My young man, that is the echo of a rale", Da Costa replied. But this beats the "echo of the rale".) She was in bed a week and under treatment for three months, losing much weight during this period. She did not miscarry and at about term she consulted Dr. Nourse. During this whole period she had menstruated regularly. Dr. Nourse questioned the diagnosis of pregnancy and had an x-ray of the abdomen made. This showed no evidence of a fetus. An operation was advised but so far has been refused. After being told she was pregnant she became conscious of a tumor in her abdomen, which has been growing steadily in size ever since. It has always been movable and at times is very annoying. When she stoops over the mass seems to remain in the upper abdomen for some time after she straightens up. There is a constant dull ache in the lumbar region, aggravated by work. The most persistent and annoying symptom is soreness in the left flank, progressing during the past six months. It is increased by sitting and relieved by lying down. In the last four years she has gained about fifty pounds in weight. She also complains of cramp-like pains in her bladder just previous to urination relieved when the bladder has been emptied. This was more marked during her supposed pregnancy, but has continued to date. When she feels the desire to urinate the cramp-like pains increase in severity until urine flows freely.

There is a noticeable edema of the ankles and feet. She has no headaches, but has occasional blinding spells associated with indistinct vision and spots before her eyes. Nocturia once. Appetite fine. Bowels regular without cathartics. Slight dyspnea when lying down. Bronchitis every winter. She states she is very nervous and easily excited. Five years ago when told she was pregnant she had several "spells" resembling convulsions at which time she would become rigid and her muscles would become very tense. After three or four of these spells she has had no more to date. Physical examination: Systems negative. Obese young woman weighing about 210 pounds. Appears to be in fair health. Head: Eyes react to L. and A. Abdomen: forty-six inches waist measure, fat and flabby, giving the sensation of fluid. To the left and above the umbilicus is a small hard mass apparently attached to a large irregular tumor extending somewhat to the right of the midline but lying chiefly on left side. It is freely movable and its upper surface is about half way between the umbilicus and the xyphoid. Palpation in the upper left abdomen gives pain in the lower right quadrant. There is dullness in the mid-abdomen changing to tympany in the extreme upper and lower parts of the abdomen. Vaginal examination is unsatisfactory because the patient is so large. The uterus is normal in size and well forward. The cervix also is normal in size and has a slight laceration. There is an indefinite sense of resistance on both sides of the pelvis. Extremities: Ankles large and swollen, pitting on pressure. Reflexes normal. There is no retention of urine. The urine is acid, S. G. 10-20. Blood-pressure 82/90. W. C. 11,350; red, 4,740,000. Wassermann negative. Blood urea, 18 mgm. per 100 c.c.

Now, as we look at this patient, considering she is rather large, we note that she has a practically uniform abdomen. Now let us palpate. Here let me tell you something about touch. During my last visit at the Tri-State Society meeting at St. Paul, they brought me a gall-bladder case. Upon very deep pressure I could make the patient wince with pain, and I said, turn on your left side and look right at the audience, and I gave him an extra shock-touch. Then they wanted to show me some x-ray pictures but I said, "I lay little stress on them,—touch is the thing". Two weeks later when a bright looking woman about sixty years of age walked into my office, I said, "Madam, what can I do for you?" "Examine me", she replied, "I have had various examinations and several x-rays taken and I have

not yet had a diagnosis, I read about your touch and came to get the benefit of it." I said, "It's working this morning; if you will please disrobe and get on the chair we will put it into action". I found a perfectly plain case: a very evident, palpable, tender gall-bladder, I advised her to have it taken out and she said she had decided to do so. When I asked her where she came from she replied, "Minneapolis".

In the case before us, upon examining the patient we have the typical findings: resonance in the flanks, a movable swelling—a swelling not detected by vaginal examination except for a sense of definite resistance high up in the fornix. She has a deep pelvis, and, of course, the distance is too great for the finger contact. As I make pressure low down I feel not only resistance, but a mass that comes up to this point (indicating), and movable. When I grasp it in my hands, the mass moves, in other words, this woman probably has an ovarian cyst. There is some resiliency. We cannot get definite fluctuation, but there may be fluctuation. The mass extends up to this point and is very evident. She agrees that it is getting larger and causing pressure symptoms, and I told her that sooner or later it would do damage by pressing upon the abdominal organs. She had not quite made up her mind about operation, but now she has. That was an easy case to diagnose. I told Dr. Rice that there was a bare possibility that this might be a soft myoma. I have often opened an abdomen and found a large uterus, without much change in color, very soft, and I stopped for a moment and was perplexed, believing that possibly I was dealing with a pregnant uterus. My friend the late Dr. Richardson once said to me, "I cannot diagnose pregnancy when I have the uterus in my hand". What he meant was that he could not always differentiate between a soft fibroid and a pregnant uterus when he had it in his hand, and therefore we are very much more likely not to be able to diagnose it when we have the abdominal wall between the uterus and the hand.

CASE III. Woman, age fifty-five, married, housewife.

"This patient complains of pain in the back and soreness in the abdomen, together with nausea, vomiting and headache. F. H.—negative. P.M.H.—Whooping cough and measles as a child. Typhoid fever when young adult. Hay fever every fall. Gall-bladder removed twelve years ago. Appendectomy and some pelvic operation eighteen years ago. Present illness: Has been a chronic sufferer for past twenty years.



For the past eight years attacks have recurred every week or two and recently she has not been free for more than a day or two at a time. In a typical attack she can frequently predict the onset. She feels weak and tired, becomes sleepy and feels hungry for a day or two preceding the attack. A bilateral backache low down in the lumbar region soon develops and is accompanied by headache, beginning in the occiput and sometimes spreading to one side of the head and over the eyes, later changing to the opposite side. She becomes very nauseated and vomits all food for two to five days thereafter. Vomitus is sour and frothy and sometimes brown in color. It subsides gradually and when she stops vomiting the headache stops. During the attack she has some pain and much soreness all over the abdomen. The pain is described as a "knotting up" and radiates to the back, being rather severe under the right shoulder blades. Between attacks there is a burning sensation in the stomach. This burning is increased just before an attack and when she lies on her right side. Soda relieves the vomiting for only a few minutes, but food and vomiting have no effect upon the burning, although the stomach feels better when empty. The pain often wakens her at night but at no particular time, the burning being relieved by getting up or sitting up in bed. She cannot eat pork, cabbage, sweets, or acid foods because of the subsequent distress. There is very little belching of gas. She has never been jaundiced. Has lost twenty-five pounds in the last three or four years.

"She has always been addicted to cathartics in large amounts. Before an attack it is almost impossible to make her bowels move. At this time she bloats up considerably and she notices considerable rumbling in her abdomen. Stools are usually watery in type and occasionally chalky in color. There is considerable mucus in the stools but very seldom any blood, although she states that the stools are black after the vomiting spells.

"She has had a dry hacking cough for past three months. No night sweats. Some dizziness and spots before her eyes at times. No nocturia. Occasional swelling of the ankles. Is very nervous and notices palpitation at times. Sleeps poorly.

Physical examination: Head; eyes react to L. and A. Systems negative. Blood-pressure—115-70. Abdomen: Slightly distended. Palpation shows abdomen sensitive all over but especially under right ribs. Some succussion sounds over stomach. No visible peristalsis. Spine: Slight

tenderness over muscles in the lower dorsal and lumbar regions. Knee jerks active. No edema. Wassermann negative.

"Fluoroscopic examination: X-ray of the stomach and duodenum is negative for organic disease. The colon when injected with the barium enema is very spastic, but otherwise normal. X-rays of the gall-bladder area are negative for calculi."

This lady is under the care of a gastroenterologist and we are asked what we think about the case. A woman with pain in the back and then in her head brings up the question of neurosis, doesn't it? You remember the three conditions we have with these symptoms tuberculosis, carcinoma, and neurosis. As to the nausea and vomiting from which she suffers, of course she is uncomfortable, of course she is distressed. In regard to the condition of constipation, my friend Lane of London would say,—a case of colonic stasis. The history is that eighteen years ago this lady had her appendix, uterus and uterine appendages removed, and twelve years ago the gall-bladder was removed. There is not anything that can be found particularly in the examination of this abdomen. She is a little tender over the scars, but there isn't anything that is evident in the shape of a mass. We have to handle her very gently, she is tender over those scars. That would permit me to say that about the only way I can make a diagnosis (and I am more often wrong than right) is that in these reoperated cases where adhesions may be suspected, I believe tenderness of the scar is more significant than anything else unless we have positive x-ray findings of bowel engorgement, or bowel angulation, caused by adhesions.

CASE IV. Male, age forty-nine, married, farmer. Stomach trouble.

"F. H. Wife has right-sided abdominal pain which has not been diagnosed." (Sympathy—there is a good deal in that sympathy.) "One brother died of ruptured appendix. Five children living and well, the youngest being two years old. There have been no deaths among his children.

P. M. H.—Usual diseases of childhood, but none of them severe. Severe attack of typhoid fever in 1918 while in army camp in Florida. Catches cold easily. A rather severe attack of influenza about a year ago. In 1923, because of crushing injury to his right forefinger, he had the finger amputated at the first joint.

H. P. I.—Has had stomach trouble ever since 1900, at which time he had jaundice, severe pain in epigastrium, and 'indigestion'."

Upon reading the history of stomach trouble I said to my friend Rice, "The diagnosis is made". "What is it?" "Ulcer". "Right". In regard to the history of jaundice, we are not going to let that stagger us, we must rise to the occasion and simply say,—sure, that clinches the diagnosis—a little acute attack, a little duodenitis traveling up the common duct—jaundice. We have a triple condition—cholecystitis, choledochitis ulcer. These often result in entangling alliances very difficult to disentangle. "No definite diagnosis made". He has usually had two attacks every year, one in the fall and one in the spring, lasting several weeks, but the one in the fall was the longest. The onset was always associated with heavy work. The pain, of a gnawing type, was always localized in the mid-epigastrium and radiated directly through the back on both sides. Typically the pain would come on three to four hours following a good meal and would be relieved by food. Never has had much nocturnal hunger. Frequent nausea and occasional vomiting, which gives relief. When his stomach is empty it feels as though it was full of 'cockle-burs'. He has learned that as soon as the pain begins he can expect to be constipated. Usually the bowels are regular without cathartics. No blood in stools or vomitus. Very little belching of gas. At times of very severe pain will also have headache. Appetite usually good. Previous to his admission to Iowa Lutheran Hospital in 1922 he had tried many doctors and had many diagnoses—catarrhal appendicitis, gall-bladder disease and duodenal ulcer. While in hospital the diagnosis of ulcer was confirmed and he was put on ulcer treatment which relieved him temporarily."

I do not like that word confirmed, because one can never be absolutely sure. There are only two ways of being absolutely sure, and that is by sight and by touch. I often have cut cases when diagnosed gall-bladder trouble and found ulcer, and vice versa. In these cases we are treading on thin ice and those of us who have been treading it for a good many years can appreciate the significance of what I have said. "He has not been able to carry out routine treatment at home and so has been a chronic invalid and has not done a real day's work since leaving the hospital." That is one of the disadvantages of medical treatment. Medical treatment has its place. In every case of suspected ulcer, the patient should have medical treatment without a shadow of doubt, before surgery is resorted to, but it is a little more difficult to treat the ambulant patient than the patient in a hospital. Therefore I say

that medical treatment is not suited for the man who has to earn his bread by the sweat of his brow. It is all right for the man who hasn't anything to do but sit around the club and play bridge, but in the case of the working man medical treatment cannot be carried out with the same results.

"During the past year he has gradually grown weaker, his pain is more persistent and not relieved so easily, and he is vomiting more. The vomitus is principally water and is very acid—no blood."

I want to say a few words about this. There is a very high acidity, no occult blood in the vomitus, no retention either of the test meals or the barium meals. In other words, the pylorus is open.

Examination does not reveal much as I neither feel nor see anything abnormal. (To patient): Where do you feel the most pain? (Patient indicates right center abdomen.) He has two points of tenderness, in the mid-line and at the side. He has lost about ten pounds in weight, probably due to the fact that he is on a rather light diet. I believe that this man undoubtedly has an ulcer located in the first portion of the duodenum and I am not at all sure that there is not also one on the lesser curvature not far distant from the pylorus. Those of us who are operating on many of these cases do occasionally find that, and we occasionally have found two ulcers in the duodenum. Since in a certain percentage of cases of ulcer of the duodenum, we have been doing duodenum amputation below the ulcer and an amputation of the stomach just distal to the sphincter, we have as a result been able to demonstrate an ulcer on the anterior wall, but often we find an ulcer on the posterior wall of which we did not know existed. I never do a duodenal operation without examining the stomach. It is a pretty safe thing to go over the abdomen even when taking out an appendix. I have found many an ulcer on the lesser curvature that I did not expect to find, and this is the way to find them: The majority of ulcers are on the lesser curvature and upon the posterior wall in the upper curvature. I go over the lesser curvature from the pylorus to the esophagus and when I find a little hard spot near the liver I manipulate a little more and say to my assistant, put your finger there, and he says, I find something hard.

Whether this man has an ulcer of the duodenum or of the pylorus or of both, he should be operated on.



As to the posterior gastroenterostomy, it is a very simple operation. It is one that is done quite extensively, but unless you have a definite lesion it does more harm than good. Posterior gastroenterostomy does not give the entire relief we hoped it would. I want to say to you that about 60 per cent of the patients of the eighty-five or ninety that we surgeons say are well, say: "I am very much better than I was before, but I still have a few symptoms, a little distention with gas and a little discomfort after eating." We ask, "Would you go back to the time before operation?" "Oh, no!" they reply.

In our laboratory we have been doing research work on this question and we find very little difference between preoperative and the positive acidity whether two or three years later. We do find, however, those patients who had a high acidity at the time of operation and come back with less acidity, are the ones that experience complete relief.

As to the sub-total gastrectomy, I am not prepared to recommend sub-total gastrectomy for ulcer although it does produce a very decided reduction in the acidity, which is usually permanent, and sometimes causes subacidity. We do not know whether it is the pyloric or the cardiac end of the stomach that is most active in manufacturing the stomach juices. Extensive resections are being done in Europe for small ulcers. I think it is too much surgery for the pathological condition, but they have a right to their opinion. The great bugbear of a gastroenterostomy is the marginal ulcer that follows in a larger percentage of cases. When you have a real marginal ulcer, a real gastrojejunal ulcer, that sends its exudate out into the colon and results in a colonic ulcer, it is Hell, as Sherman said about war, not only to the patient but to the surgeon. I know of no more difficult piece of work than a very bad marginal ulcer with extensive adhesions. Therefore, it is good to "Stop, look and listen" before doing a gastroenterostomy and to be sure that you have a lesion that warrants that procedure.

In regard to the etiology of ulcer, we have been working on this problem for years. We have tried to produce ulcers in dogs and other animals but have not succeeded. We do know that if we cut off the common duct and thus prevent the duodenum from receiving any bile, the acid gastric juice will cause an ulcer in the duodenum nearly every time. This tells us that the gastric juice is a factor. We have three conditions in the etiology: (1) A something before ulceration takes place. What is that something?

Lowered resistance. (2) Infection, because in an area of lowered resistance you have a favorable soil for infection to do damage. If we have a decided and definite lowered resistance, then infection occurs and the gastric juice passing around over the infected area acts as a cauterant, the stepping-stone we might say, in the production of ulcer, after which we have (3) the exudate or fibrosis.

One word more. These cases are difficult to diagnose even with the x-ray. I would like to say to you that I do not care much whether my patients are x-rayed or not. In the presence of abdominal pathology, we operate. It is the mode now to have an x-ray taken from lip to anus. They bring pictures to me by the hundreds, but I do not always look at them.

---

### PROBLEMS OF THE DEAF\*

MAX A. GOLDSTEIN, M.D., St. Louis

The subject which your program committee has assigned to me is one of considerable latitude. The "problems of the deaf" is rather an elastic subject, and embraces rather a large field both scientifically, by which I mean distinctly medical, and pedagogically. Not only in the field of general medicine and in otology, but in the field of the education of the deaf, both the adult and the child, the medical profession has contributed a very substantial quota to this important development.

It is rather a strange coincidence that throughout the decades most of the development of proper training of deaf children has been the result of the activities of the otologist. From Itard, the keen French otologist active at the end of the seventeenth century, to the time of Urbantschitsch of Vienna, from whom I received my first inspiration about thirty-three years ago, the question of education of the deaf child by the education of such remnants of hearing as still existed, has been developed through the work of otologists. From the demonstration presented to you this morning by the children from the Des Moines School for the Deaf, you have gotten a bird's-eye view of what is being accomplished. What is indigenous in Iowa educational work along this line may be found in any other state; no state stands out more prominently than another in this particular field of endeavor. I believe that what has perhaps given an unusual impetus to the education of the deaf in America,

---

\*Address given at Diamond Jubilee Anniversary of Iowa State Medical Society, Des Moines, Iowa, May 12, 13, 14, 1926.

has been the association of the trained pedagogue in the field of education of the deaf child, and the experienced otologist and psychologist, familiar with the details of anatomy and physiology of the speech mechanism and of the hearing organs. It is by the cooperation of these forces acting in the capacity of doing something constructive for the deaf child, that we have made advances of no uncertain degree in this field.

As I said this morning, the deaf child intrinsically is a deaf child, not a deaf and dumb child. Every child born deaf has the potentiality of speech, and that speech can be developed if the child is placed in the hands of properly qualified teachers. And here is one of the most important factors in the whole field of education today. The reason that there is criticism, not always favorable, of teaching methods, is because the qualification of the teacher has been deteriorating. Unless we get better teachers we are undermining the future strength of America. I heard Professor Withers, formerly superintendent of instruction of the city of St. Louis, make a statement the year after the war to the effect that there had been a falling off in the matriculation of the various normal schools of the state of Illinois of over 75 per cent. Why? Because the men and women who had qualified to go into the teaching profession found that they could apply their energies and attainments to a much greater degree and for better compensation than in the teaching of children. The result is that your teachers have deteriorated and the American child is the sufferer. That applies to every type of child, whether normal or defective.

Before going more deeply into our subject it might not be amiss to give a little sketch of the altruism that was instrumental in my association with this work. The deaf child thirty years ago was simply being taught in a "hit-or-miss" manner. The teacher of the deaf child knew little of the physiology of speech or of the anatomy of the ear. The result was that there was an imperfect and a more or less defective form of training imparted to the deaf child. With the advent of more rigid and more thorough training of teachers there has been a very evident improvement in the speech methods taught to this large class of handicapped children. Teachers of the deaf today know the anatomy of the organ of Corti and the physiology of the intrinsic muscles of the larynx and therefore they are qualified, in addition to the pedagogic strength which they develop, to give to the deaf child and to the defective-speech child that form of educa-

tion to which he is definitely entitled. My claim is that the blind, the crippled, the mentally defective and the deaf child are as much entitled to your consideration in the community in which you live, as is the normal child with a broken leg or with typhoid fever. The community owes to the handicapped child the same degree of consideration that it bestows upon the normal child either for his education or for his economic occupation. Deafness today is a much more prevalent handicap than ever before.

For the purpose of making a differential diagnosis of the types of deafness within the last few years many contributions have been made in the development of electric devices for measuring the acuity of hearing and the quantity of hearing. The Iowa State University, through Prof. Seashore, Dr. Dean and Mr. Bunce, has added much to this field, and the first audiometer was developed in the State University of Iowa. By means of the audiometer we should be able to differentiate an oto-sclerosis which has a definite clinical and pathological significance, from the usual adhesive processes. Today the otologist who has in his office a patient with defective hearing and makes that differentiation, but continues to treat an oto-sclerotic and take the money of the patient, is guilty of a medical crime.

By means of the audiometer we are also in a position to determine the progress either for good or for deterioration of the hearing.

There is a distinct difference between the deafness of the adult and that of the congenitally deaf child. There are two types of congenitally deaf children. I differentiate these two types as follows: (1) Biological congenital deafness in which there is a biological absence of some part of the organ of hearing. (2) Pathological congenital deafness in which some factor of disease, as syphilis, tuberculosis, or rickets, has made its inroads during fetal development and has produced a pathological change in the hearing mechanism which then is evident as a congenital condition. So we have on the one hand the individual who has never heard sound, and, on the other hand, the adult who has become incapacitated later in life, but who has been educated to speech in early life; this contact has made the handling of the adult deaf a much simpler proposition than the handling of the deaf child, born without the power of hearing speech.

You can readily understand that the teacher of the deaf child has to deal with two important factors in the education of that child; not only with the development and production of actual speech and the teaching of efficient lip-reading,



but he has to teach that child reading, writing and arithmetic and also impart the polish the normal child receives, the result of which is that by the time the deaf child reaches high school grade he is classed with normal children and holds his own. But that is not easy. Teaching the deaf child is a labor of love, of much patience, of skill, and of good, substantial and fundamental training, requiring a much different form of pedagogy than that given by the ordinary teacher in the class-room. The humane doctor can also give his definite support to a movement that is now gaining ground.

There are several interesting scientific phases in the development of the pedagogy and science of teaching the deaf, especially the child, to which I want to call your attention. One is the close association of the special sense organs.

John Tyndall, one of the big quartet of English scientists of fifty years ago profoundly investigated the physics of sound and its relation to all the organs of special sense—hearing, sight, smell, taste—and ventured the opinion that these faculties were modifications of the sense of touch; that there was no hearing unless a sound wave came in direct contact with the hairs of Hensen in the organ of Corti; that there was no perception of light unless the waves of light came in contact with the rods and cones of the retina; that there was no smell unless there was contact of a wave of motion wafting a smellable particle to the terminal filaments of the olfactory nerve. The touch sense is located all over the body, but is most pronounced in the fingertips, in the tongue, in fact all over the skin. We have made experiments on deaf children which indicate that the touch sense can be developed in any portion of the skin to almost the same degree of sensitivity as in the finger-tips. We have played a piano with kiddies twenty-five feet away and they have correctly differentiated and interpreted the vibration of low-pitched from high-pitched sound by feeling vibration. After all, as far as we know, heat, sound, light and electricity, are all modifications of the same wave of motion. There are differences in degree and differences in intensity, and there is the possibility of translating one of these forms of motion into the other. So with this principle involved, we seek scientifically and pedagogically to study the problem of the deaf. A group of normal pupils are subjected to the use of sound vibrations carried through speaking tubes several rooms away; by this means they have been taught groups of words which they get through the sense of touch entirely. Mrs. Smalley tells me that she is car-

rying out some of the experiments she saw done last year along this line at Central Institute for the Deaf and this experiment will now be demonstrated.

(Mrs. Smalley successfully demonstrated the method in the case of a small boy.)

In those children who can hear only the elementary sounds of the human voice and are not able to differentiate them more than a few inches away, we utilize exercises which are incorporated in what is called the acoustic method. These children begin with no differentiation of sound whatever, and in the course of weeks and sometimes months we eventually, in many of these cases, get them to a point where they can receive most of their instruction entirely through the ear. If we get no further than the differentiation in pitch in this class of cases, we are accomplishing much for the quality of speech of these children.

(A demonstration of some steps of the acoustic method was given by Mrs. Smalley and some of her pupils.)

Another question of general importance is spoken language. The English nation turned over to us a very remarkable legacy, the English language. Unfortunately we have jumbled it up so that this legacy is no longer recognizable. Much complaint is made about the speech of young America, and young America is not to blame. If a business man sits in his office with a large cigar in one corner of his mouth and starts to dictate a letter to his stenographer, he is not talking English. If a teacher, hailing from south of the Mason and Dixon Line talks with a brogue to her pupils, she is not talking English. If a clerk or stenographer has a wad of chewing gum in one side of her mouth while articulating, she is not talking English.

A very bright young fellow brought his bride to my office one day and after introducing her said, "Well, what do you think of my girl?" I replied, "She is fine but she lisps"; he said, "Oh, Doc, that's cute!" It may be cute, but it can be corrected, and that young woman can develop the dignity of speaking substantial English.

Nine-tenths of our own colleagues when they get up to read a paper cannot be heard in the tenth row.

Speech is but an imitation of the sounds that are heard, and if you want the American child to talk correctly, and talk English perfectly, give him the opportunity of hearing it. If you want your own children to talk English correctly, the parent, the teacher and all who come in contact with the child should talk proper English. Let us

give our children good English speech through the force of example.

At Central Institute for the Deaf, and you will pardon me for referring to this American clearing-house for the deaf, which happens to be located in St. Louis,—we have trained over 400 teachers who are qualified to teach the deaf child and to teach corrective speech. The science of corrective speech should interest the medical profession. It should interest first the laryngologist, for it is being incorporated in the evolution that is going on in medical, scientific and pedagogic education, and the laryngologist should lend his influence in its development. Speech correction has been raised to the dignity of a medical science, and the rank and file of the medical profession can be interested in this movement and thereby benefit the communities in which they serve.

I want to leave you with the thought that the practice of medicine is a greater thing than simply standing in the operating room or by the bedside of the patient. Research does not mean exclusively the injection of all kinds of sera and solutions into experimental animals, although many of our research committees still believe this. There is just as much research work accomplished in the close daily observation of a deaf child and studying his evolution psychologically and pedagogically, as in observing the reactions of virus injection in a white rat and studying the end-results under the microscope.

Our work is comparatively new, and we cannot expect it to become immediately popularized. You have sensed the idea, and I am leaving you members of the Iowa State Medical Society, celebrating your Diamond Jubilee, with the happy thought that Iowa will do its bit in the development of the handicapped child of the future.

---

#### OTO-LARYNGOLOGICAL CLINIC\*

---

MAX A. GOLDSTEIN, M.D., St. Louis

Assisted by

Mrs. L. D. Smalley, Superintendent of School for Deaf Children, Des Moines,

and

William W. Pearson, M.D., Des Moines,  
Chairman of Clinic

It is rather a significant fact that your program committee, in their wisdom and far-sightedness, has wedged me in between two such masters in surgery as Dr. Mayo and Dr. Kanavel; significant, for the cause which we plead and represent.

\*Address given at Diamond Jubilee Anniversary of Iowa State Medical Society, Des Moines, Iowa, May 12, 13, 14, 1926.

I have a very fond spot for Iowa. During the most severe period of the flu epidemic I served at Camp Dodge, where I had the inspiration of such men as Edgerly and Peck and other Iowans who gave a good account of themselves, and I became a little better acquainted with the medical complexion of Iowa. On one occasion the telephone rang and a lady identified with the parents' and teachers' association representing the deaf children of Iowa, asked if I would come to a conference in Des Moines to determine what best could be done to develop the education of the deaf children in Iowa. At that time the Iowa legislature had just passed a law which made it compulsory on the part of every large community in the state of Iowa where a group of deaf children could be found to give them an education in that community and to provide for that purpose teachers properly qualified to give that form of training. The training of the deaf child in Iowa up to the age of ten years goes on in these communities under these conditions and after that the children are sent to the state school at Council Bluffs.

It has taken thirty years of hard, earnest and disinterested work to finally arouse the medical profession to the realization that there is something more to do than make the proper correction of a defective tendon in the hand or remove a diseased gall-bladder; to see a dollar sign on every pair of hypertrophied tonsils or straighten every nasal septum that might go on uninterrupted for the next sixty years—there is something more to do to maintain an active professional conscience. There are activities with which the medical profession should be identified that are just as humane and justifiable and necessary as the application of an important piece of surgical technic or as the most profound therapy, and that is the development of the heart that is in the doctor to give a part of his energies, of his time, of his experience, and of his brains, to the community in which he lives towards the uplift and improvement and alleviation of the handicaps of the human family; in this particular instance I mean the crippled child for whom surgery has no more possibilities, the blind child for whom the ophthalmologist can do little as far as surgical and therapeutic measures are concerned, the deaf child who no longer can be associated with a doctor as doctor and patient. But where the medical man can serve and help the larger community is in the uplift of these children. In this field the doctor can, by his influence, develop in the community in which he lives and in the larger community around him an



increasing interest in this problem, he can assist in the counsels of those who are working especially along the lines of elevating the condition of the handicapped, by education and by science. And this is my mission today.

The census that is now being taken of the deaf and deafened humans throughout the country,—deaf and deafened adults and children for whom medical-otological care is no longer of avail, numbers (and the census is not yet completed) over three and one-half millions. Three and one-half million individuals of the total population of the United States is an important factor to reckon with, and we as an influential medical group in the nation must lend some assistance to this work. Our clinic today will consist of a practical demonstration of some of the work with the deaf child. I venture to say that the majority of you here have never been in a classroom where a deaf child is taught. I would even add to that—I doubt whether there are a half dozen otologists who have ever visited a school for the deaf in their state unless they came there to treat a suppurating ear or do a tonsil or mastoid operation. To observe the deaf child and recognize the future possibilities there are for his upbuilding, has never interested the doctor to any serious degree. The signs of the times, however, point to a keener interest on the part of the medical profession in this field of endeavor. To some of us it is of such significance that we devote the major part of our lives to that form of work.

I saw these children for the first time about an hour ago. They are the children of the Des Moines Day School for the Deaf. The purpose of the teacher of the deaf is to develop in the child flexible, fluent speech, and if he gets him early enough he can later place that child in a school-room with normal children. We have gotten away from the sign-method of teaching the deaf. The state of Iowa has done some excellent work along this line, and we feel assured that it will always be ready to serve the deaf child well. The principal of the school in Des Moines is herself the mother of a deaf child, and when you have an affliction of that kind in your own family the subject strikes home to you more keenly than it does to men and women who are merely onlookers. The speaker here introduced Mrs. Smalley and her group of deaf children from the Des Moines school. (Thirteen children marched to the platform in time to music. Mrs. Smalley then directed the children in giving a demonstration of speech and lip-reading.)

Dr. Goldstein: There is no child born deaf who has not the potentiality of speech. In other

words, in an experience of about thirty-three years I have seen only three cases of congenital mutism. They are mute because they are deaf, and if you would take a normal human being with perfect vision and with perfect hearing and place him in an environment where he hears no human voice, that person would never speak. So the deaf child who has never heard speech and who is not trained to speak, remains dumb. And if that speech training does not go on before the child is seven or eight years of age, the subject soon develops an atrophy of the muscles of the larynx. In the case of the child who comes to school at thirteen years of age and has never been trained, it will be very difficult to acquire normal speech.

Mrs. Smalley will now show you the first steps in teaching the elements of speech. There are two ways in which the deaf child comes in contact with you: He comes in contact with you by his own speech, you come in contact with him by lip-reading or expression-reading.

(Mrs. Smalley demonstrated various methods of speech building in deaf children.)

---

#### HOW MAY THE WIFE BE OF ASSISTANCE TO THE COUNTRY DOCTOR?\*

---

MRS. G. T. McDOWALL, Gladbrook

There are two phases to this question, a positive and a negative. First, the wife must always remember she is a lady and in her meeting and associating with people of the community may attract or repulse them. She must be courteous, friendly, and sociable, not haughty and carry herself as though better than other people.

She must be agreeable and pleasant, not only to her husband's patients, but to others, even though she knows they are the worst knockers, for she never knows what stranger may be watching and judge accordingly. Many people judge the doctor by his wife. A gossipy, slovenly woman can do more to injure a doctor than all the science in the world can build up.

She can be a help by keeping herself posted on the sickness and diseases that are prevalent; as to how they are contagious and how persons may be immunized against different contagious diseases, such as diphtheria and typhoid fever. Not in a boastful manner or in a way that people think you have an eye for business. Sometimes a word of advice to a mother will bring a new patient to the husband, especially if a doctor has not been much of a necessity in the household.

\*Read before the Tama County Medical Society, Traer, Iowa, December 22, 1926.

It is a poor policy to criticize other doctors or belittle them. Strive to show yourselves above such petty things. Do not make yourself obnoxious by too much familiarity, in other words, "falling all over people", or singling them out above others, taking them auto riding and so forth. Too much familiarity breeds contempt here as elsewhere. To get people dissatisfied with you is a sure way of injuring your husband.

She must keep up to date in current events, as well as health and hygiene in order to meet the better class of people with whom she comes in contact. Jealousy should never enter the mind of the doctor's wife as it is part of the game to be pleasant and courteous to his lady patients. Anyway patients do not like to be spied upon.

She must not be extravagant. She must dress neatly and in a creditable manner. If she is extravagant some good patient's wife may say: (as I heard one say) "I paid for that purple velvet suit". Maybe the doctor has studied just as hard and put in as much time and labor as her husband did to earn the money. The people may not know how long she has gone without other things in order to have that dress or how badly it was needed in order to appear in public. If she goes shabbily dressed some may say he "hasn't much business" or "is not much good".

The country doctor's life is one of hardships, therefore the wife must expect that at times she will have to make sacrifices. The telephone seems to be the fly in the ointment in most doctor's homes, and many a pleasure is not to be thought of when the calendar is marked with O. B. cases. If we have an extra amount of work to do and a given time to do it in, then the jingle of the telephone is heard most often or at least it seems that way, and it seems as though every one is sick at the same time. Sometimes we are expected to stay at home and watch "Little Jimmy", as the phone is dubbed by the daughters of our household, when a shopping trip or a club meeting is planned. Friend husband arrives home the night before the trip and announces, "It is necessary for me to be out of town tomorrow morning" and the shopping trip is given up. The vacation trips are planned so as to be ready at a twenty-four hours notice and it is then in a hurried manner before someone gets you at the last minute. The auto is a blessing then because you don't have to wait for trains or miss them either.

How many times the jingle of the bell wakens us from a much needed nap to relieve you of a splitting headache. It is hard then to stretch the truth and answer cheerfully, but it has to be done.

The doctor's wife should be a part of the community in which she lives. Take part in all movements for the improvement and betterment of the community as any up-to-date business man's wife does. She should remember, that as the doctor is a public servant so is she. She should never talk about the number of calls her husband makes or how much better he is than others. Do not brag and blow and remember that "self praise is half scandal". "Let another praise thee, a stranger and not thine own lips", is as true now as in the days of Solomon. Many a mile of travel over rough roads and precious minutes are saved by knowing where the doctor is and how long he will be gone.

In closing, I believe this poem by Isabelle Collins describes the life of a country doctor's wife much better than I can do:

#### SOLILOQUY OF A DOCTOR'S WIFE (With apologies to Edgar Allen Poe)

Once upon a midnight dreary,  
As I wakened, weak and weary,  
To answer for the hundredth time,  
The telephone's insistent call—  
As I paced the floor, so cold,  
And replied in accents bold,  
"He's almost there, I'm sure",  
Though he hadn't left the hall.

I wondered whether Aaiden,  
With its restful visions laden,  
Would have a place apart  
For the doctor's weary wife.  
Where no fib she'd have to tell,  
Where there wouldn't be a bell,  
Where there'd be no patients rude,  
Stirring up eternal strife.

Where no voice, so cold and distant,  
Could answer her insistent,  
"What name shall I tell him?"  
With insulting "Never mind".  
Where she could dine without a fear  
That her company would hear,  
"Hello! Just give her a cathartic  
That'll fix her up you'll find".

Where she could go to the theater,  
And a little supper later,  
Without being interrupted  
By that everlasting call—  
"Telephone for Dr. Brown"—  
To the other end of town  
And he'd not get back till midnight,  
If he's back that night at all.

So if within this distant Aaiden,  
With its restful visions laden,  
There's respite and nepenthe  
From the telephonic bore.



Let me haste on wings of light—  
But a still voice gives me fright  
As it whispers grim and low,  
"You're its slave forevermore".

## THE DIFFERENTIAL DIAGNOSIS OF ACUTE PYELITIS AND ACUTE APPENDICITIS\*

H. W. SCOTT, M.D., Emmetsburg  
Formerly of the University Hospital

The problem of kidney and appendiceal differentiation is, very much as it always has been, often a difficult procedure. In any case of abdominal pain, especially if right sided, one should first consider the appendix for, in a majority of instances, it will prove to be the offending organ. A good many normal appendices have been removed because of abdominal pain without relief to the patient because the kidney was in reality responsible for the pain. In the chronic cases there is always time for more complete investigation, especially urological study, whereas in the acute cases time is often a vital factor.

In either acute pyelitis or acute appendicitis, if typical, there is rarely reason for a mistake in diagnosis. It is the atypical case that gives the diagnostician the difficulty. Yet the atypically acutely inflamed appendix is just as liable to rupture and lead to dangerous sequellæ. In chronic cases the diagnosis is not so readily established. Yet with the aid of a carefully taken history, x-rays, a thorough physical examination and the use of a cystoscope the diagnosis can be more satisfactorily reached. In the history an effort should be made to ascertain the very first symptoms of the condition for if the original acute onset of either condition can be obtained it should help a great deal in the final opinion of the condition present. In either chronic appendicitis or chronic pyelitis there should have been at some time or other an acute attack. Many pathologists deny the existence of a primary chronic appendicitis, and a good many prominent authorities give appendicitis as a not infrequent etiological factor in the development of pyelitis.

In any right sided abdominal pain, if not clear cut and associated with such symptoms, signs and findings as to warrant a clinical diagnosis, further investigation should be given. X-rays should be made. A careful history should be taken. The physical examination should be complete; blood counts and urinalyses made, a Wassermann taken, and, in certain cases at least, the

patient should be cystoscoped. The x-ray may reveal a shadow in the upper urinary tract region. The cystoscope will localize this shadow to the urinary tract or outside of it. By means of the ureteral catheter the urine from the side in question can be examined, the presence of residual urine in the renal pelvis determined and the capacity of that renal pelvis determined by the injection of water. The pain caused by the injection of the water may reproduce the patient's complaint both in character and location and if so it is conclusive as to the site of the trouble. On the other hand, the pain caused by the distention of the renal pelvis may be entirely different from that which the patient is complaining of and if so it is equally important for it aids materially in ruling out the kidney as the location of the trouble. A uretero-pyelogram should then be taken for the size, contour and location of the ureter and renal pelvis and the relation of any shadows to the outline given by the opaque medium. Also the segregated renal functional test should be performed so as to obtain the relative functions of the two kidneys. With these findings at hand it is safe to estimate that in a large majority of cases the kidney can be ruled in or out.

It entails too long a discussion to present the entire differentiation of renal and appendiceal diagnoses. I am therefore limiting my paper to the differential diagnosis of acute pyelitis and acute appendicitis in adults. I shall endeavor to present what usually prevails in the typical acute case in each condition.

In acute pyelitis, the disease has a fairly sudden onset and it is usually ushered in with anorexia, chill, high fever and is associated with headache, nausea and vomiting. There is usually pain in the back, which on close questioning may be found to be bilateral although it is often more severe on one side. A large number of the patients complain of the pain being in the abdomen; here again it may prove to be bilateral although more pronounced on one side. There may be no pain at all. The nausea follows the pain. It is of reflex nature and may lead to a mistaken diagnosis of acute appendicitis, particularly if the patient's pain is in the right abdomen. The tenderness may also be in front or behind over the kidney. The patient may give a history of the tenderness being greatest anteriorly whereas on examination it may be found to be posterior. With the onset of the acute pyelitis there are no bladder symptoms because the infection has not yet extended to the bladder from the renal pelvis. After two or three days, however, the drainage

\*Read before the Upper Des Moines Medical Society, Emmetsburg, Iowa, April 29, 1926.

becoming more free infects the bladder and then the symptoms of frequency of urination, burning and smarting on voiding appear. It is at this time that the urinalysis first becomes positive, there being first motile bacilli, then pus and possibly some red blood cells and casts in the microscopic picture. Thereafter, unless exacerbations occur the condition improves gradually so that in about ten days the patient seems well out of it. During the height of the infection the leucocytes are usually high, varying from 15,000 to 30,000.

One should search for focal infections in pyelitis. Although 90 per cent of pyelitis is said to be due to organisms of the colon group, there are cases that develop the infection from more distant sources such as abscessed teeth, bad tonsils and so on. Pyelitis may develop in the course of some acute disease such as typhoid fever or during some chronic debilitating disease such as pernicious anemia or after some nervous system lesion such as subacute combined sclerosis. Congestion is one of the important factors in the production of renal infection. Such congestion may be brought about by nephroptosis, straining, lifting, running and by toxic disturbances.

Women are more subject to pyelitis than men. Even in childhood girls are much more likely to have pyelitis than boys. A second period of liability to pyelitis is at the defloration period; again during repeated pregnancies and still again during the menopause.

A chronic urinary infection may lie dormant many years and then be lighted up by some condition giving lowered vitality. The normal kidney excretes and destroys bacteria without developing the infection in many instances. This leads to the conclusion that it is difficult for pyelitis to develop in a renal pelvis that is in itself normal.

In acute appendicitis the onset is usually rather sudden. As a rule the first symptom noticed is pain in the upper abdomen. The pain is often of intermittent cramping nature and within a few hours tends to localize to the right lower quadrant. The generalized pain at the onset is said to be due to contractions of the appendix and cecum and is referable to the solar ganglia. The localized pain is due to peritoneal irritation. Soon after the onset of the pain the patient is likely to become nauseated and will perhaps vomit once during the first few hours. The bowels are usually costive. The temperature should typically be 99 to 99.4. The patient will often assume the dorsal decubitus with the right thigh drawn up or will walk with the trunk bent forward. The pulse may be more rapid than is pro-

portional to the temperature. The abdomen reveals rigidity on the right side and definitely localized tenderness to McBurneys point. Auscultation over the area of the appendix may show absence of borborygmi. The leucocytes although usually not high may be so; they are usually from 12,000 to 15,000. The urine should be negative. It should be born in mind that some cases which clinically give the impression of only a slight infection may show at operation severe pathological change such as gangrene or empyema. In acute appendicitis, rectal or vaginal examination may reveal the most acute point of tenderness if the appendix is lying toward or into the pelvis or there is an abscess developing. Rectal and vaginal examinations will also aid in eliminating pelvic causes for the pain. In cases where there is peritoneal involvement, the rebound tenderness over the appendix may be greater than that obtained on direct pressure.

Now and then an acutely inflamed appendix lies retro-cecal in contact with the ureter. These cases often give an extremely difficult problem in the differential diagnosis. If there is sufficient ureteritis produced by the proximity of the inflamed appendix there may be partial blocking of the ureter with consequent damming back of the urine, distention of the renal pelvis and therefore renal pain. There may also be blood in the urine because of the ureteritis. Such a case should be cystoscoped and the upper urinary tract investigated with the aid of the x-ray. If it proves to be entirely unilateral with no evidence of a stone present, the history of the onset for appendicitis, and the temperature and leucocytes corresponding to what is usually seen in acute appendicitis, one is justified in exploring the abdomen rather than to take a chance on the condition not being appendicitis.

To summarize the differential points between acute pyelitis and acute appendicitis:

Acute Pyelitis	Acute Appendicitis
1. Chill common.	1. Chill very uncommon.
2. Pain in upper abdomen or back often referred to groin or thigh.	2. Pain at first generalized over abdomen or noticed especially in epigastrium, localizing to R. L. Q.
3. Bilateral.	3. Unilateral.
4. Tenderness anterior or posterior.	4. Tenderness over McBurneys point.
5. Rigidity posterior; sometimes anterior.	5. Right lower quadrant rigidity.
6. High fever.	6. Slight or no fever.



- |   |   |
|---|---|
| 7. Bladder symptoms.  | 7. No bladder symptoms.                           |
| 8. Pyuria.  | 8. Urine negative.                                |
| 9. High leucocytosis.   | 9. Slight to moderate leucocytosis.               |
| 10. More apt to occur in women.                                     | 10. Either sex equally affected.                  |
| 11. No relief drawing up right thigh.                               | 11. Some relief drawing up right thigh.           |
| 12. Pathology slight in comparison with findings.                   | 12. Pathology marked in comparison with findings. |
| 13. No rebound tenderness.  | 13. Rebound tenderness.                           |
| 14. Appendix may be etiological factor.                             | 14. Nothing actually definite as to etiology.     |
| 15. Haemotogenous, contiguous or ascending and therefore secondary. | 15. Primary in most instances.                    |

### IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines  
Commissioner Iowa State Department of Health

#### MEASLES

*Prevalence*—The most common of all infancy and childhood diseases, which we designate measles, is, at present, showing a very high incidence.

More than 400 cases have recently been reported in the state of Iowa within one week. From one community, it is reported that 239 out of 523 pupils are out of school because of measles. While not usually regarded as a highly fatal disease in itself, measles accounted for fifty-four deaths among children in the state, in 1926, and was the precursor of a large number of cases of broncho-pneumonia.

In 1926, there were 4945 cases of measles reported to the State Department of Health. This large number as compared with reports for previous years may have been partly due to better reporting in 1926. From the large number of cases being reported at present, there are apparently still many large susceptible areas or groups of children in the state, and these may be attacked before the epidemic subsides.

#### *Any Specific Treatment or Prophylactic?*

1. Drs. Ferry & Fisher claim to have isolated the strain of streptococcus causing measles and have called it *Streptococcus morbilli*. The organism elaborates a toxin for the neutralization of which they claim to have produced a specific antitoxin. (References, Journal A. M. A., March 2, 1926, page 932, and Research Bulletin of Parke, Davis Co., December, 1926).

2. Ruth Tunnicliff claims to have produced a definite prophylactic serum by the immunization of goats with a streptococcus isolated by her from cases of measles. (See article on "Measles Prophylaxis" by Hoyne and Gasul in Journal A. M. A., October 9, 1926, page 1185). This serum was found effective in 90 per cent of contacts treated within five days of exposure. Where it did not completely prevent the attack, it reduced its severity.

3. Investigators in Italy, like Caronia, claims to have isolated the specific organism (an ovoid coccus) causing measles and to have produced a vaccine from this organism which gives 98 per cent immunity against the disease. The causative organism, these investigators claim can be found in the desquamated epithelium, the blood, cerebrospinal fluid, nasopharyngeal discharges, and the bone marrow.

4. A number of students of the measles problem have been advocating the use of convalescent serum and among these Drs. Park & Freeman (see Journal A. M. A., August 21, 1926, page 556) claim to have treated 1500 children with such serum as a prophylactic and state that they obtained very satisfactory results.

The injection intramuscularly of 6 c.c. of convalescent serum for a child under three years of age and of 6 to 10 c.c. for one over that age into persons not later than five days after their exposure to measles, either prevented the actual development of the disease or rendered the attack very mild in the few cases in which it was not aborted. This serum taken from convalescent children after the temperature has been normal for four days, gave an immunity lasting from two to four weeks. Serum taken from convalescents, even a month or more after recovery retains a high degree of potency. Convalescent children can readily yield 10-25 c.c. of blood and adults larger amounts. Donors of blood must be free from all diseases transmittable by the blood. The blood taken from a vein is allowed to clot. The sera from donors are drawn off, mixed, tested, by the Wassermann and sterility tests, and, according to one method, 0.25 per cent tricresol is added as a preservative. The serum is then bottled and put on ice. In this way it will retain its potency for six months or longer. A method used in France for the preparation of the serum is described in Journal A. M. A., January 29, 1927, page 358.

Of all prophylactic forms of treatment, convalescent serum is the only one at present generally available. The physician requires very little equipment to obtain and prepare the serum,

and the technique does not differ from withdrawal of blood for ordinary blood tests. It might be used to advantage by many of the medical profession in the present measles epidemic, in Iowa.

Because of the sources from which the serum must be obtained, it is impossible for the State Department of Health to include it among its available biological supplies. Groups of physicians or clients however, might profitably combine to make available a common local supply for their own community.

#### SPECIAL COURSES IN THE TREATMENT OF VENEREAL DISEASE

Surgeon General Hugh S. Cumming has announced that the U. S. Public Health Service will give special courses of training to physicians, clinicians, and health officers at its venereal disease clinic, Hot Springs, Arkansas.

This clinic offers exceptional opportunities for the study of the venereal diseases, especially in clinical and laboratory diagnosis, treatment methods, and clinic management. Last year 3,570 indigent persons were examined at the clinic; 3,064 cases of syphilis and gonorrhea were diagnosed and given a total of 32,315 treatments.

The instruction courses will consist of a series of lectures, demonstrations in laboratory and treatment methods, and practical experience in the diagnosis and treatment of syphilis and gonorrhea in various stages through participation in the routine work of the clinic. New classes of not more than ten physicians will form on the first of each month and the course will continue for a minimum of thirty days. Engraved certificates will be presented by the Public Health Service to those who satisfactorily complete the thirty-day course.

Fees are not charged for this course of instruction. The individual physician, however, will necessarily provide his own travel expense to and from Hot Springs and his living expenses while there.

The U. S. Public Health Service requires that Iowa applications for the course be endorsed by the state health commissioner. Although our state department of health is not giving financial aid to any of the V. D. clinics of the state, we shall be pleased to endorse the application of any regular physician who desires to take the course. Application forms may be obtained by writing The State Department of Health, Des Moines, Iowa.

#### INFECTIOUS JAUNDICE

J. W. WALLACE, M.D., C.P.H., Des Moines  
Iowa State Department of Health

At the American Medical Association meeting in San Francisco, June, 1923, Dr. George Blumer of New Haven, read a paper on Infectious Jaundice. This paper was published in the A. M. A. Journal of August 4 of that year.

Dr. Blumer's paper showed that there had been a large number of recent epidemics of jaundice which had occurred in many localities in the U. S., and in Canada, and that there were epidemics of the same or a similar disease which dated as far back as possibly 1812. There were only a few states in the U. S. A. according to Dr. Blumer that had not reported epidemics between the years 1912 and 1922. In Iowa, there had been reported at the date of Dr. Blumer's paper, small or widespread epidemics at New Liberty and Bennett in 1915; at Belle Plaine, West Branch, Waucoma, Waukon, Iowa City, Willow and Waterloo in 1921, and at Clarion in 1923.

In January of this year (1927), many cases have been reported at Lake View in Sac county. In some districts in that county, practically all the pupils in the schools are stated to be suffering from, or to have suffered from the disease. A few adults are also affected.

This disease, it is believed, is a distinct entity, is definitely communicable, has no connection with Weil's disease or spirochetel jaundice, and has no necessary relationship to the rat as a vector or agent in disseminating the disease.

There is a district in Utah that seems to be endemic to this disease, as each fall and spring the disease reappears. Dr. J. H. Peck of Tooele has described his experience with the disease in that district (see "California and Western Medicine", August, 1925), and many cases of the disease were seen by the writer in company with Dr. Peck of Tooele. The disease attacks chiefly children of both sexes from three to twelve years of age, and very rarely persons of the adult age.

The incubation period varies from two to twenty-eight days, but is usually from four to ten, and a very definite history of contact was obtained in many of the cases that were studied in Utah. The general history of the cases observed in Utah was that a child would show for about a week some indisposition with loss of appetite, before becoming definitely ill, stools becoming clay colored and foul. With the onset of the definite symptoms, there is usually severe



vomiting with a definite rise of temperature, in some cases the fever reaches as high as 105° F. Shortly afterwards in nearly all cases the jaundice becomes well marked. This jaundiced condition may last for only a couple of days or may persist for a week. The recovery is usually rapid and the whole illness generally lasts very little over two weeks. The liver is usually enlarged and tender, and bile is present in the urine. A moderate leucocytosis occurs, but the itching, so common in other forms of jaundice, is not particularly marked.

As the causative agent is unknown, there is as yet no specific treatment and relief measures have therefore to be largely of a symptomatic nature. The usual treatment for fever cases should be practiced, with plenty of fluids and greatly reduced quantities of fats and sugars. Anodynes and hydrotherapy may be useful if the pain or fever are high, and some stomachic or appetizer may be given during convalescence, but most cases make a rapid and uneventful recovery.

The precautions to be taken from the public health standpoint are (1) isolation of all cases to prevent contact with other children for at least two weeks; (2) disinfection of all fecal and urinary discharges from the case as would be done if the case were one of typhoid fever; (3) the same or similar precautions and care should be taken in regard to eating utensils and other articles in contact with the patient, as would be observed with a typhoid case.

---

#### IRRADIATION OF DISEASED TONSILS

---

This article describes a new method of treating tonsillar hypertrophies by means of removable platinum radon seeds, giving detailed reports of a series of cases where tonsillectomy was for different reasons contraindicated, and illustrating the application of the technique to varying pathological conditions.

To carry out the application of the seeds, a new implanter is used which is illustrated and described in the article.

As the pain of implantation and removal is practically nil, at no time is any anesthetic required, there is no need of hospitalization, nor disability of any kind. The total absence of shock is a great advantage in inoperable cases.

By means of the implanter the operator is able to place one removable radon seed in the center of a tonsil so that radiation is distributed equally throughout. The radon seed used is filtered by 0.3 mm. of platinum. This filtration cuts off the caustic Beta rays thus doing away with all possibility of burning with consequent necrosis and sloughing.

When the instrument is withdrawn after implantation the seed is left imbedded in the tonsil with a 2 cm. length of thread protruding from the portal of entry. This short thread does not in any way inconvenience the patient, nor cause the slightest interference with function. At the end of four days the seeds are easily removed by grasping the thread with forceps.

The point of the trocar is so fine and the seed so small that very little trauma is done to the tonsil.

The amount of radiation can be measured with accuracy and the applicators located with such exactness as to insure equal and complete distribution throughout the tissues. Only one treatment is necessary, a fact much appreciated by the patient. Systemic reactions of any kind never occur. The attached thread, making the seed easily removable when its period of service is over, does away with an objectionable foreign body being left in the tissues—a drawback to the bare tube method. The author concludes that in the implantation of removable platinum radon seeds we have at present an adequate substitute for tonsillectomy in those cases where surgery is, for any reason, contraindicated.

The technic and method described in the article has been developed by Dr. Joseph Muir of New York.—J. Coleman Scal, *Med. J. and Rec.*, 124:873, December 1, 1926.

---

#### DEATH RATES OF WOMEN FROM CHILD-BIRTH

---

The Department of Commerce announces that the changes in the death rates of mothers from childbirth, or puerperal causes, were very slightly less in 1925 as compared with 1924.

For the thirty-two states for which figures are available for 1925 and 1924 the rate from puerperal septicemia was 2.4 per 1,000 live births for both years and the rate from other puerperal causes was four for both years. Of these thirty-two states sixteen showed higher rates from all puerperal causes in 1925 than in 1924.

For the twenty-six states and the District of Columbia, which constituted the "Birth Registration Area of 1921", the rate from all puerperal causes decreased from 6.7 in 1921 to 6.4 in 1925 per 1,000 live births, and the rate from puerperal septicemia from 2.7 to 2.4 per 1,000 live births.

Florida had the highest death rate in 1925 from all puerperal causes (12.1 per 1,000 live births), and Connecticut the lowest (4.9).

Separate rates for white and colored are shown for only six states: Florida, Kentucky, Maryland, Mississippi, North Carolina, and Virginia. The highest rates in 1925 for both white and colored were for Florida (10.2 and 16.3 per 1,000 live births, respectively), and the lowest were for Maryland (5.1 and 8.9 respectively).—The Boston Medical and Surgical Journal.

The Journal of the  
Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

Publication Committee

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII                      April, 1927                      No. 4

THE BUSINESS OF MEDICINE

It is beginning to be felt that the business of the practice of medicine is becoming unusually burdensome to the profession. As expressed by some, the manufacturers of physicians' supplies are demanding excessive profits and that the physician must take into account this fact in rendering bills. Not a little complaint is made by the public of the size of the bills and no doubt this feeling lies at the foundation of many mal-practice suits, especially counterclaims. But what can the doctor do? He must purchase books, he must secure the most recent instruments for diagnostic purposes and means of treatment, he must also have a car that people may respect and approve. All these are essential to secure a professional business and if the doctor does not transfer a part of these added expenses to the public he is himself liable sooner or later to become a charge upon someone. There are not a few who predict that the apparently excessive cost of sickness will in time lead to the state taking over the practice of medicine in some form. We all have a feeling that state control of medicine will reduce the position of the doctor to the servant status. No one, not even the sick public, would desire this; it would cause him to loose faith in the wisdom of his physician. We may listen to the complaints of the public on reading an interesting article, not long published, in the Atlantic Monthly on the "High Cost of Babies", in which it was said that

her mother's babies cost, for the doctor \$10, for the nurse \$5 a week or \$10 for the confinement period, and it was costing her for the first baby \$50; for the last, \$500. The writer could not understand why this was so. In the Long Island Medical Journal a patient was interested to know why she was charged \$50 by a physician while a neighbor was charged \$35 for a similar service.

These are questions the public are asking. On the other hand the doctor is asking why his margin of net profits are so small. Have we among us men of such wisdom as to make these questions clear? Will it be necessary for the state to do it for us?

DUES AND MEDICAL DEFENSE

We observe the following notice in the Indiana Medical Association Journal in relation to state dues and medical defense. "Recently we learned that one state medical association had dues of twenty-five dollars per year, and that out of this amount fifteen is held in reserve for medical defense. Some of the Indiana doctors kick like army mules because of the small dues they have to pay (not Iowa doctors, of course), and yet they get about twenty-five dollars' worth of service for every dollar paid in dues, and the dues for a year don't amount to as much as the price of two tickets to a good theatrical performance."

DR. RUDOLPH MATAS

Dr. Matas of New Orleans is undoubtedly the most famous of southern surgeons and although sixty-seven years of age is active in professional matters. We take the opportunity to abstract a sketch of his life and the honors which have been conferred on him from the Medical Herald and Physiotherapist.

Dr. Matas was born in New Orleans, Louisiana, of Spanish parents in 1860, and received his primary education in Spain and Paris. Coming to the United States while still a school boy he studied at Brownsville, Texas, and Soule's college, New Orleans. He was graduated from the Literary Institute of St. John at Matamoros, Mexico, in 1876. Four years later he received his M.D. degree at Tulane University and became a professor of surgery in that institution in 1895.

In 1917 he became a major in the medical reserve corps of the army, and is a member of



numerous medical surgical societies both in this country and abroad, including the Societe de Chirurgie and the Association of Military Surgeons of the United States, the Association for the Study and Prevention of Tuberculosis and the Association for Cancer Research. He was honorary president of the Pan-American Medical congress held in Washington in 1895.

For a number of years he was editor of the New Orleans Medical and Surgical Journal and is the author of many treatises and monographs on surgical subjects. Doctor Matas is also a frequent contributor to medical journals and text books.

---

#### THE SHEPPARD-TOWNER LAW

---

The eight day deadlock struggle to extend the Sheppard-Towner law to two years was broken by a compromise which extended the law for two years but is automatically repealed at the end of that time, June 30, 1929.

The following comments appear in the New York Times of January 18:

"In 1921 Congress was persuaded to pass the so-called Sheppard-Towner Act 'for the promotion of the welfare and hygiene of maternity and infancy and for other purposes'. Only by limiting the appropriations under it for five years could it have got through. It appropriated annually \$240,000 to be divided equally among the states at the rate of \$5,000 a state, plus a sum proportionate to population. To get this bounty, paid in part by itself, the state had to appropriate in equal sum. Five states, Connecticut, Illinois, Kansas, Maine, Massachusetts, have never taken a cent of it. Now the senate has accepted without roll call an amendment continuing the appropriation for two years, but declaring that the Maternity Act shall be of no force and effect after June 30, 1929.

"This action was a compromise. Presumably it was the best that could be done. So we are to have two years more of federal 'encouragement'. Its results seem to be invisible to the American Medical Association. Doubtless the members of that body are prejudiced. Only the sponsors of the law, largely lay sentimentalists, are capable of estimating its value. That any congressman who gives even occasional lip-service to state rights could support this federal subsidy and this federal interposition in state legislation and taxation would be comical if there were not so few democrats left not willing to leave their states as foundlings on Uncle Sam's doorstep; if there

were not so few congressmen of any party willing or able to resist the wheedlings or the threats of noisy minorities.

"Many lips will still open longingly for Uncle Sam's magic nursing bottle after 1929. The next or some other Congress may revive 'inspirational' work by a subsidy; and the Children's Bureau of laymen and laywomen will continue its beneficent activities though there be no Sheppard-Towner Act to enforce."—Journal of the Medical Society of New Jersey.

---

#### THE PERKINS, HASKELL-KLAUS LAW

---

An important amendment is being proposed to what is known as the Perkins, Haskell-Klaus law which has been in force for several years in Iowa, and has contributed much to the credit of the state in the way of affording relief to many unfortunate children whose financial condition rendered it impossible to secure skilled treatment. The law provided that these unfortunate persons be treated at the University Hospital at Iowa City, on the theory presumably that as the treatment was to be conducted at the expense of the state it could be conducted more economically and more efficiently at the University Hospital under the direction of the University faculty. It could reasonably be assumed that the University Hospital would be better equipped for this particular kind of work, which is often highly specialized and requires much expensive apparatus and highly trained attendants, which, particularly at that time could not be supplied by private hospitals. Another important consideration was the concentration of a large number of cases under one control, leading to a greater variety of experience and the acquirement of a higher degree of skill. The central idea was to afford these unfortunates the best skill to be obtained, equal to that to be secured at the great medical centers.

From the evidence at hand it would appear that several abuses have inadvertently crept into the administration of this law. It has been pointed out that on some occasions certain persons, able to pay a reasonable fee, either by clever deception or by frank misstatements have been received and treated at the University Hospital at state expense. Too, patients at present, are committed to the hospital for an indefinite period of time and having been once admitted for service, return as frequently and over as long a period of time as they may see fit. No provision is made, under the present law, for with-

drawing this free service even after such a person, because of a changed financial status, ceases to fall into the class for which the service was intended. It is also pointed out by those supporting the amendment, that as the law now stands all expense incurred in the transportation of the patients with attendants to Iowa City, their care and maintenance in the hospital and the expense of transportation returning them to their homes is borne by the state through the general fund.

The amendment proposed by Wamstad, known as House File No. 283, has been introduced in the General Assembly for the purpose of rectifying the alleged abuses of this law and distributing the costs of its enforcement more equitably. It is thought that the commitment of persons able to pay for service, would be materially lessened if the county sponsoring this commitment be responsible, through its supervisors, for the expense incurred. Also that a county accountable for such a commitment will require definite facts, other than the patient's statement, regarding his ability to pay. Too, it is provided that a hospital expense occasioned by such an indigent patient may be recovered by the county attorney if this person shall within a period of two years become able to pay. This would act as material deterrent to persons in making false statements since the service if secured, would constitute a valid lien against properties which they then held or acquired during the following two years. If we assume this change, as offered, would adjust this alleged abuse, would it follow, as has been suggested, that it might at the same time defeat the noble purpose for which the law was created, namely, of offering aid to the indigent in their physical disasters? Would courts because of this accountability be so reluctant in issuing commitments that some needy, deserving and indigent person be denied this service? It is believed that such would not be the case. The demand for this service would not be lessened and its use not denied except to those whose financial status proved an obstacle.

It is further proposed to change the length of time for which the order of commitment would be effective from an indeterminate time as at present to a definite period of two years. Realizing, however, that every case cannot be completed in this time it further provides for recommitments when, and as many times as may be necessary.

As suggested above it provides that each county be rendered an accounting of the expense

incurred for treatment of patients from that particular county and that this money be expended from county funds instead of the funds of the state. This certainly would appear a just distribution of this cost since by this plan a given county is only accountable for work done for citizens of that county. However, it was felt that the transportation expense should continue to be borne by the state since otherwise counties distant to Iowa City might feel reluctant in assuming a larger railroad charge than that paid by closer counties. It would seem that this precludes the possible criticism that certain counties were to be favored by this change.

Summing up the amendment it appears that it would be a forward step in securing effective, economical and fair execution of a law which in purpose is certainly commendable. Since this amendment bears the endorsement of the Board of Trustees as well as that of the Legislative Committee of the Iowa State Medical Society, it should receive the careful consideration of every member of the Society.

---

#### THE LISTER MEMORIAL COMMITTEE APPROVES THE FOLLOWING LETTER

---

This year, 1927, will be the centenary of Lord Lister's birth. He was born on April 5, 1827. There is no doubt that many surgeons, and scientific men throughout the world will observe this centenary. In Britain, the British Medical Association will meet in Edinburgh and a celebration of Lister's centenary is to form a leading part of the program. In Canada, the second Listerian Oration is to be delivered in Toronto before the Canadian Medical Association.

But, it would seem desirable that steps should be taken to observe, in every year, the natal day of Lister—to whom the world owes so much, who was, to quote the recent words of Moynihan, "the greatest material benefactor the human race has ever known". Already steps are being taken toward this end. In Glasgow, where the antiseptic system had its beginning, Sir Hector Cameron, Lister's oldest living house surgeon, will deliver an oration on April 5. At King's College Hospital, London, Sir Watson Cheyne will address the Lister Society. At the Johns Hopkins Hospital arrangements have been made to celebrate the day.

It is with these facts in mind that the Lister Memorial Committee of the Canadian Medical Association address you. The committee ask for your help in the establishment of the fifth of April as "Lister Day" in every medical school and every



hospital and every health center throughout the world.

The committee suggest that in every medical school, on that day, some special notice should be taken of Lister's work, which, indeed, touches every branch of medicine. That in all hospitals the wards may be decorated in some suitable way, and perhaps a lecture on Lister be given to such patients as are convalescent. Further, that the medical profession everywhere should try to arrange for cooperation with the public health authorities to select Lister Day as a date for special appeals in aid of hospitals, and of all measures to interest the public in such questions as the anti-tuberculosis movement, the cancer campaign, and sanitation in general. It is also suggested that in many places, in town and country, medical men will assist the educational authorities in observing Lister Day in some appropriate way in the schools.

We shall be glad to know if these aims have your approval.

For the Lister Memorial Committee,  
John Stewart, Chairman,  
F. N. G. Starr, Secretary.

112 College Street, Toronto.

---

## TISSUE DIAGNOSIS IN THE OPERATING ROOM

---

### And Immediate Cover-slip Examinations of all Fluids and Pus

Baltimore, February 3, 1927.

Dear Sir:

I will consider it a courtesy if you will publish this letter in your journal, as I am anxious to come in correspondence with pathologists and surgeons interested in the immediate examination, by frozen section, of tissue in the operating room and the immediate cover-slip studies of smears from all fluids and pus.

Microscopic examination of stained frozen sections has been possible for more than a quarter of a century. The staining of unfixed frozen sections with polychrome methylene blue and other stains is a well-established procedure. In many operating rooms in university and other large and small surgical clinics, provisions for these immediate diagnostic studies have not only been available, but have been in practical use for years. While, unfortunately, on the other side, this diagnostic part of the operating room is conspicuous by its absence in many clinics.

Before 1915 it was rarely necessary for a surgeon well trained in gross pathology to need a frozen section to help him in diagnosis at the operating table. Since 1915, and especially since 1922, the public has become so enlightened that malignant disease formerly easily recognized either clinically or in the gross, now appears in our operating rooms

devoid of its easily recognized clinical and gross appearance and can only be properly discovered by an immediate frozen section. The majority of operating rooms are not equipped or prepared for this new diagnostic test.

The first essential part for this diagnosis is the technician—one to cut and stain the frozen section, or to make and stain the smear. The second is a pathologist trained to interpret it. It is possible for the surgeon to be all three in himself, and some young surgeons are so equipped. In others it is a dual combination—surgeon and pathologist in one, and the technician. More frequently it is three—operator, technician and pathologist. It makes little difference whether it is one, two or three individuals, providing each has the equipment and training for this most difficult diagnostic test.

In the address as chairman of the surgical section of the Southern Medical Association, I discussed biopsy, and this paper has been published in the Southern Medical Journal for January, 1927 (Vol. xx, page 18). A reprint of this paper will be sent to anyone on request. The chief object of this letter is to come in contact with surgeons and pathologists who are sufficiently interested in this problem to discuss it either by correspondence, or by attending a meeting in the surgical pathological laboratory of the Johns Hopkins Hospital, either the Monday before, or the Friday after the meeting of the American Medical Association in Washington.

Schools for technicians may have to be established in different sections of the country, and the surgical pathological laboratories of the medical schools and the larger surgical clinics should offer courses in this tissue diagnosis, so that surgeons may learn to become their own pathologists, or pathologists learn the particular needs of the surgeon in tissue diagnosis in the operating room.

It is quite true that when the majority of the public are fully enlightened, the surgeon will see lesions of the skin and oral cavity and the majority of subcutaneous tumors when they are so small that their complete excision is not only indicated, but possible without any mutilation. The chief danger here will be a surgical mistake—the incomplete removal of an apparently innocent tumor. There is no necessity here for biopsy. If a proper local excision is done, no matter what the microscope reveals, that local operation should be sufficient. But when lesions of the skin, oral cavity and soft parts are extensive and their complete radical removal mutilating, then and there must be biopsy to establish the exact pathology.

In tumors of the breast and disease of bone, for years, the diagnosis could be made clinically, or from the gross appearances at exploration. But now, an increasing number of cases, the breast tumor must be explored, and the gross pathology of this earlier stage is not sufficiently differentiated to allow a positive diagnosis. Immediate frozen

sections are essential to indicate when the complete operation should be done. The same is true of the earlier stages of lesions of bone. The x-rays no longer make a positive differentiation between many of the benign and malignant diseases, for example, sclerosing osteomyelitis and sclerosing osteosarcoma.

We must not only specialize in tissue diagnosis, but we must organize this department so it will function properly in as many operating rooms as possible in this country.

Then there is a final and most difficult question to consider. I doubt if it can be settled. What shall be done in those operating rooms in which there is no technician to make the sections and no one trained to interpret the microscopic picture? How can a piece be excised or a tumor removed, for example, from the breast, and this tissue sent to some laboratory for diagnosis without incurring the risk of the delay to the patient. I have discussed this point in my paper on biopsy.

Joseph Colt Bloodgood,  
Surgical Pathological Lab.,  
Johns Hopkins Hospital.

---

#### THE DANGER OF INCOMPLETE REMOVAL OF SMALL AND APPARENTLY INNOCENT LESIONS

---

To the Editor:—I wish to call attention to a life-saving and fundamental fact in the treatment of small tumors. Now that many persons are receiving correct information and are reporting for examination at once, or very quickly, after they feel the little tumor or mass, there is danger that this apparently innocent neoplasm may be incompletely removed by "shelling out", or enucleating or by removing by blunt dissection, or by cutting the tissue with the knife too closely to the capsule or border of the tumor.

A patient wanted a wen in the scalp removed. It was about 2 cm. in diameter and had been present many years. There had been no evidence of recent growth; there had been no pain or tenderness. It has always been my rule to remove all such tumors completely, so that if the microscopic examination showed malignancy, it would be unnecessary to remove any more tissue. In this case, when I made the gross section through the growth removed, I did not find a dermoid but a solid cancer, and the immediate frozen section, stained with polychrome methylene blue, pictured a fully developed spinal cell cancer arising in a dermoid.

This morning I looked at the stained section of a tumor removed from the region of the left knee joint. It showed the cellular picture of a chondrosarcoma. Clinically, and in the gross, it had impressed the operator as a benign tumor. The mass, about 2.2 cm. in diameter, had been felt by the intelligent patient over the inner head of the tibia—

it was painless, did not interfere with the joint function, but as it got a little larger, she sought an examination in June. The surgeon describes it as a movable mass, but not as movable as a joint body. At operation it was subcutaneous, but slightly adherent to the fascia. It impressed him as encapsulated. He removed it by blunt dissection combined with enucleation and shelling out. It had the gross appearance of a fibroma, with yellow and brown areas of the xanthoma. It was firm, like cartilage. In a few days, to the surprise of the operator, his pathologist reported sarcoma. There would have been no difficulty in this case at the first operation to have made a complete dissection so that, no matter what the microscopic report proved it to be, no further operation would be necessary. Now, in the case just quoted, to the discomfort of the patient and the chagrin of the surgeon, it will be necessary to excise the scar and a good margin of the tissue with the cautery.

Every physician should know that the object of removing skin lesions and the different types of lesions of the mouth and subepidermal and subcutaneous nodules is to protect the patient from the possible malignant degeneration in such benign localized neoplasms. But at the same time it should be borne in mind that malignant change in the cells present in these local growths may have taken place, so that, if it is not completely removed, there will be local recurrence with great danger of metastasis. Even if the tumor is still distinctly benign and the cells are as yet histologically benign and physiologically quiescent in their potential malignancy, incomplete removal will be followed by local recurrence of the benign tumor. Thus, the entire object of the operation will be lost and, in addition the second tumor, the descendant of the first, will be potentially more malignant than its parent. We are getting correct information to the public. Most of the lesions of the lower lip, of the mucous membrane of the oral cavity and tongue, the warts, moles and keratoses and other local lesions of the skin, the subepidermal and subcutaneous nodules and tumors, are now well known to the public. They go to their family physicians with curiosity and usually with anxiety as to whether the lesions ought to be removed. In my own clinic, the percentage of these benign lesions has increased from less than 3 up to 1900 to more than 60 since 1920.

The rule should be this: Whenever any local lesion can be thoroughly and completely removed with a wide margin, that is, margin, wide enough for any type of malignancy which is possible in a local lesion in the specific area, this operation should be done with or without the cautery. There should never be an exception. There is no need of biopsy and, no matter what the section shows, no indication for further local operation. If the local lesion is of sufficient extent to make the complete operation mutilating, then its character must be ascertained at once by frozen section and the indicated



operation must follow at once. Better no operation at all than an incomplete operation. Now that patients are reporting in such large numbers with lesions of this character in which the chances of a permanent cure are generally 100 per cent, these chances should not be impaired by an incomplete operation based on the clinical diagnosis of benignancy. A malignant growth in its earliest stages has no more definite symptoms than pregnancy in the early days.

In the surgical pathologic laboratory of the Johns Hopkins Hospital, 33 per cent of all sarcomas came under observation as recurrent tumors, and in 75 per cent of these the primary tumor was small, operable and, with the rarest exceptions, apparently curable. But, because of its small and apparently innocent character, it was enucleated or shelled out.

I would sincerely appreciate if readers of this letter will report to me instances of this kind in their observations. It is a simple message, and I feel confident that if properly brought to the attention of the medical profession, mistakes of this kind will cease.—Joseph Colt Bloodgood, Baltimore, Maryland.

---

#### RULINGS IN ACTION AGAINST ROENTGENOLOGIST—EVIDENCE

(Butler vs. Rule [Ariz.], 242 Pac. R. 436)

The supreme court of Arizona, in reversing a judgment for \$1,000 damages obtained by plaintiff Rule, as administratrix, for the death of a woman alleged to have been caused by the negligence and unskillfulness of the defendant, a roentgenologist and physician, in administering a roentgen-ray treatment for a sarcoma of twelve months' growth in the left groin, says that the only expert testimony on the question as to whether the treatment described by the defendant as having been given was proper or not was the testimony of the defendant and that of another physician, who testified as a roentgen-ray expert. According to these experts, the defendant was not guilty of negligence or want of skill. In giving the treatment, he had exercised the care and skill usual among physicians and surgeons in good standing under similar circumstances—the standard to judge him by in the use of the roentgen-ray as a remedial agent. However, if there was evidence as to the manner in which he administered the treatment in conflict with his testimony, and tending to show that in some essential the treatment was not given as the defendant stated, the expert testimony to that extent would fail, and a question of fact for the jury arise. The value of an answer to a hypothetical question may be destroyed, if the facts or some of the facts on which it is based are not conceded or proved as a part of the case.

While the defendant stated the distance from the target to the skin by measurement to be 15 inches, another witness, who was the only person present

aside from the defendant during the treatment, testified that such distance was from 10 to 12 inches. A positive statement of the distance, arrived at by actual measurement, certainly should be taken against an estimate or guess, and, if the question involved only which of the two methods was the more accurate, this court would be willing to agree with the defendant that no conflict was created. But the question also involved the veracity of the witnesses. The jury might have concluded that the defendant did not measure the distance at all, and that his statement that he did was not true. Where there is a conflict in the evidence, the weight and credibility to be given the witnesses is always a question for the jury. If the jury believed the testimony of this other witness, the length of the treatment should have been limited, according to the defendant's own testimony, to between thirteen and fourteen minutes, whereas it lasted thirty minutes. If the target was only 10 or 12 inches from the skin under the expert testimony, the treatment was improper, and the defendant in its administration failed to use the care and skill usually exercised by the members of his profession similarly situated. So the court concludes that there was sufficient evidence of negligence or want of skill to take the case to the jury.

The negligence or want of skill in administering the roentgen-ray treatment, even if established, was not enough to entitle the plaintiff to recover. She must go further and show that the injury suffered in such treatment caused the death of her intestate or hastened such death. The defendant contended that all the evidence was to the effect that the woman died from cancer. It was true that two physicians testifying as experts said that in their judgment she died of sarcoma or cancer, and no one testified that the roentgen-ray burn caused her death, or hastened it, or contributed to it. Notwithstanding, this court thinks that the physical facts justified the trial court in submitting to the jury the question as to whether the burn received in the treatment caused or contributed to the woman's death, the evidence showing a swelling of her stomach and leg, blisters thereon, inability to rest, loss of sleep, and continuous pain and suffering, all of which came immediately after the burn, and doubtless were caused by it.

The rule seems to be that a physician who has attended a party is not disqualified to testify as an expert concerning such party's ailment, when he can disregard what he has learned in communicating with and examining such patient, and make his answers solely on the facts as related in hypothetical questions.

Expert witnesses may well be asked to explain the customary and correct methods employed by medical men in good standing in administering roentgen-ray treatments, for the purpose of guiding the jury in determining whether in the given case the defendant exercised ordinary care. Such customary and correct methods so detailed have no

other purpose than to show the jury how the profession acts when exercising ordinary care and caution, and to establish for the jury's guidance the standard or degree of care to be employed by it in arriving at its verdict. The degree of care of a physician in good standing, operating roentgen-ray machines, is the same as physicians and surgeons in the general practice. This has been numerously decided.—*Journal of the A. M. A.*

---

### UNITED STATES CIVIL SERVICE EXAMINATION

---

The United States Civil Service Commission announces the following open competitive examination:

#### Social Worker\* (Psychiatric)

Applications for social worker (psychiatric) will be rated as received by the Civil Service Commission at Washington, D. C., until June 30.

The examination is to fill vacancies in the Veterans' Bureau and in positions requiring similar qualifications throughout the United States.

The entrance salary is \$1,860 a year. A probationary period of six months is required; advancement after that depends upon individual efficiency, increased usefulness, and the occurrence of vacancies in higher positions.

The duties will be to investigate history and environmental conditions of patients; to analyze and submit data to the physician to aid him in arriving at a definite diagnosis and in outlining a course of treatment; to consider, report upon, and treat the social environment to which a convalescent patient may go or be expected to go.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience; and a thesis or publications to be submitted with the application.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of U. S. civil service examiners at the post office or custom house in any city.

---

### KAHN TEST NOW USED BY ARMY AND NAVY

---

The United States Army and Navy have abandoned the Wassermann test and are now employing the Kahn test as a standard procedure for the recognition of syphilis. This decision followed a comprehensive study of the value of the two tests. It may be of interest to know that the Kahn test also has been adopted by many states and not a few foreign countries. In fact, laboratories throughout the world are adopting it and using it in preference to the Wassermann test, which is more expensive and requires more time. The Kahn test is comparatively simple. The blood serum of a patient is mixed with a special reagent antigen which can be pre-

pared readily. Within from thirty seconds to three minutes the precipitate appears in the mixture if the patient has syphilis. No precipitate appears if the patient is free from the disease. The antigen for this test is a stable product and can be shipped anywhere in the world without danger of deterioration. The test can be made anywhere, in tropical or Arctic regions, in the field laboratory of the army or aboard ship in the navy, and at a cost decidedly less than that of the Wassermann. Inasmuch as the Kahn test is far more dependable and accurate than the Wassermann test which is not only complex but offers sources of error, it is thought that the Kahn test should be a standard procedure everywhere for the detection of syphilis.—*The Journal of the Indiana State Medical Association.*

---

### SUBDELTOID BURSITIS

---

Inflammation of the subdeltoid bursa is a troublesome condition because of its situation, interfering seriously with the use and movements of the shoulder. It is often diagnosed as rheumatism which serves so many times as a satisfactory explanation for pain and disability in this part of the body. The exposure of this bursa to trauma is probably an important cause in producing an inflammation of this structure. It is not evident that subdeltoid bursitis is often caused by infection for when the bursa is incised no pus is formed and bacteriologic examination of the tissues does not reveal any organism. Operative treatment is not recommended except in chronic cases when excision may be employed. In acute cases rest and diathermia gives the best results. Rest in abduction in a plaster cast is the proper position to be continued for a week to ten days with the administration of salicylate of soda during the rest of the treatment.

---

### CHOLELITHIASIS IN THE NEGRO

---

Dr. Emile Block of New Orleans, in a paper published in the October, 1926, *Surgery, Gynecology and Obstetrics*, states that while the negro has many diseases in common with the white race calculi in the bile and urinary tracts are rare. Dr. Block has no statistics upon which to rely in support of his contention, yet observations at the Charity Hospital at New Orleans seem to support this fact. In this paper Dr. Block enters upon a scientific discussion to explain the reason for the absence of biliary and nephritic calculi in the colored race.

---

### TAKE DUE AND TIMELY NOTICE

---

Your 1927 membership card will be your mark of eligibility to register at the Seventy-Sixth Annual Session, Council Bluffs, May 11, 12 and 13. Have you paid your 1927 dues to your local Secretary?



## SOCIETY PROCEEDINGS

### Cherokee County Medical Society

The Cherokee County Medical Society, with members of the county dental association as guests, held a session at the Sioux Valley Hospital Tuesday night, January 11, electing Dr. C. H. Hall as president of the society and also as president of the Sioux Valley staff for the ensuing year. Dr. Paul E. Allen was elected secretary of both groups. Nurses of the hospital served a lunch during the evening.

Other feature events were a paper on Focal Infections, by Dr. Cleaves, and a book review on Cabot's "The Heart", by Dr. Allen. Dr. Jacobs of Larrabee is the retiring president of the medical society and Dr. C. H. Johnson retiring president of the staff. Dr. J. H. Wise was secretary of both organizations in 1926.—Cherokee Chief.

### Ida County Medical Society

The Ida County Medical Society met at Hotel Baxter, Ida Grove, February 6, 1927, to elect officers for the new year. The results were as follows: Dr. G. C. Moosehead, president; Dr. C. L. Putnam, vice-president; Dr. C. G. Bretthauer, secretary and treasurer; Dr. C. G. Bretthauer, delegate to the State Society convention, Council Bluffs; Dr. T. J. Houlihan, alternate delegate. Board of censors: Dr. M. W. Grubb for three years to serve with Drs. T. J. Houlihan and G. L. Millue, one and two years.

No scientific program was given but members present requested to have Dr. E. W. Brookhart give a paper on Tularemia, of which he recently had a case, at the next meeting in March or April to be held in the Hotel Baxter, Ida Grove, Iowa.

C. G. Bretthauer, Sec'y.

### Johnson County Medical Society

The Johnson County Medical Society met at the commercial club rooms, March 2nd, for their regular monthly meeting. Fifty-six members and guests were present.

One of the features of the evening was the introduction of Dr. L. J. Leech of West Branch, a man of eighty years of age and still in active practice. He is a graduate of Iowa in 1881.

A scientific program was given which was very interesting. Tumor of the Lateral Wall of the Larynx, by Dr. W. F. Boiler. A Talk on the Discussion of Some of the Disputed Points in the Treatment of Diphtheria, by Dr. P. C. Jeans, head of department of pediatrics, University of Iowa.

The meeting was short and full of enthusiasm.

Geo. C. Albright, Sec'y.

### Linn County Medical Society

The Linn County Medical Society, Cedar Rapids, Iowa, at the meeting on March 10, 1927, celebrated the fiftieth anniversary of Dr. G. E. Crawford who

has been an active member of the society for fifty years. During this period he has been twice president of the society and also president of the State Medical Society. For the last twenty-four years he has been councilor for the Fifth District. The Doctors Crawford asked the privilege of entertaining the officers and members of the society and visiting physicians, at supper, at the Killian Tea Room, at 6:30 p. m. The meeting was held there immediately following the supper.

The program was as follows: Fifty Years of Medicine—A Retrospect, Dr. G. E. Crawford. A Doctor of the Old School, Mr. W. R. Boyd. The Body Mender, Mr. Jay G. Sigmund. Truth and Fiction about the Endocrines in Gynecology and Obstetrics, Dr. Jennings Crawford Litzenberg, prof. of obstetrics and gynecology in the University of Minnesota.

### Polk County Medical Society

The Polk County Medical Society met for its regular monthly meeting at the Fort Des Moines Hotel. The meeting was opened at 7:50 p. m. by the secretary in the absence of the president and vice-president, who appointed Dr. M. L. Turner as president pro tem.

The minutes of the previous meeting were read and approved.

Clinical cases were called for but none were presented.

#### Program

Scarlet Fever Control—James E. Dyson, M.D.

The Treatment of Cardiac Failure—Prof. F. M. Smith, M.D., College of Medicine, State University.

Birth Control—F. B. Langdon, M.D.

Dr. Dyson's paper was discussed by Dr. Henry Albert, Dr. Fred Moore, Dr. Wallace, Dr. M. L. Turner and closed by Dr. Dyson. Dr. Smith's paper was discussed by Dr. M. M. Myers, Dr. W. L. Bierring, and closed by Dr. Smith. Dr. Langdon's paper was discussed by Dr. F. W. Rice, A. C. Page, Dr. F. W. Fordyce, and closed by Dr. Langdon.

The secretary then read a communication from the Woodbury County Medical Society in reference to the Haskell-Klaus bill and brought up the question of the society taking some action concerning the passing by the state legislature of some amendment of this bill. It was shown that various counties were paying large sums of money, in taxes and sending very few patients to Iowa City under the Haskell-Klaus bill. The matter was discussed and Dr. W. E. Sanders moved that the society adopt the idea of the Woodbury county resolution and do whatever is necessary and possible to forward this movement. Motion was seconded and unanimously carried. It was then moved that a committee of five be appointed by the vice-president, Dr. A. D. McKinley, to proceed along these lines. Dr. McKinley appointed Dr. W. E. Sanders, chairman, Dr. J. A. Downing, Dr. Thomas A. Burcham, Dr. J. E. Kessell and Dr. W. E. Wolcott.

A report from the Hospital Advisory Committee was read and adopted and a motion passed to place it on file.

The application for membership of Dr. H. A. Shom was presented to the society, having been favorably acted upon by the board of censors. It was moved that the by-laws be suspended and Dr. Shom be unanimously elected to membership. Duly seconded and unanimously carried.

The application of Dr. E. T. Lovejoy was presented to the society and referred to the board of censors.

The secretary then read a communication from the Bankers Life Insurance Company, in reference to the broadcasting the medical subjects, thanking the society for their cooperation.

There were nineteen members and twelve visitors present.

L. K. Meredith, Sec'y.

#### **Sioux Valley Medical Association and Sioux Valley Eye and Ear Academy**

The Sioux Valley Medical Association and Sioux Valley Eye and Ear Academy met in joint session at Sioux City, January 18 and 19. Officers elected by the Eye and Ear Academy were: President, Dr. Ray Kelley, Mitchell, South Dakota; vice-president, Dr. S. R. Gifford, Omaha; secretary and treasurer, Dr. F. H. Roost, Sioux City.

On the last day of the Sioux Valley Medical Association three valuable papers were read by Drs. Rodda, Minneapolis; B. D. Corbus and L. D. Snorf, Chicago. Clinics were held at the morning session by Dr. Myers of Des Moines, on the Heart; by Dr. F. E. Clough of Lead, South Dakota, on Fractures; and Dr. E. S. Judd of Rochester, Minnesota, on Surgery.

#### **MEDICAL SOCIETY OF THE MISSOURI VALLEY**

The fortieth anniversary of the Medical Society of the Missouri Valley will be celebrated in Des Moines, Iowa, September 14, 15 and 16, and a banner meeting is expected. The program committee is at work assembling papers. The major portion of the essayists will be drawn from the Universities of the Missouri Valley states. The arrangements under the direction of Dr. Granville Ryan are progressing rapidly and a splendid entertainment is being prepared. Hotel Fort Des Moines will be headquarters, and the sessions will be held in the new Shrine auditorium, with the exhibits on the lower floor. The officers of the society are as follows: President, T. G. Orr, M.D., Kansas City, Missouri; first vice-president, Fred Moore, M.D., Des Moines, Iowa; second vice-president, J. M. Patton, M.D., Omaha, Nebraska; treasurer, O. C. Gebhart, M.D., St. Joseph, Missouri; secretary, Chas. Wood Fasset, M.D., Kansas City, Missouri.

The executive committee having the program in charge consists of the following members: Donald

Macrae, M.D., Council Bluffs; J. M. Mayhew, M.D., Lincoln; Granville Ryan, M.D., Des Moines; J. E. Summers, M.D., Omaha; P. T. Bohan, M.D., Kansas City; A. D. Dunn, M.D., Omaha, and T. G. Orr, M.D., Kansas City (ex-officio).

At this the fortieth anniversary there will be a complete reorganization of the society. An effort will be made to present at future meetings the newest research and clinical investigations developed in the Valley. In addition several clinicians and scientists of note will be on each program.

#### **IOWA PUBLIC HEALTH ASSOCIATION**

The following is the program of the meeting of the Iowa Public Health Association, to be held at Council Bluffs, May 10, 1927, day before the meeting of the State Medical Society.

9:30 A. M. President's Address—Dr. D. C. Steelsmith, Dubuque.

10:00 A. M. Forecasting Epidemics with Special Reference to Measles—Dr. Henry Albert, Des Moines. Discussion opened by W. D. Hayes, Sioux City and Dr. A. A. Robertson, Council Bluffs.

10:30 A. M. Public Health Nursing and its Relation to the Community—Edith Countryman, R.N., Des Moines. Discussion opened by Frances G. Hutchinson, Council Bluffs, and Ruth Bartholomew, Atlantic.

11:00 A. M. Progress of the Campaign for the Eradication of Diphtheria—Dr. James Wallace, Des Moines. Discussion opened by Dr. John A. Redmond, Cedar Rapids, and Dr. R. L. Barnett, Atlantic.

11:30 A. M. The Significance of Laboratory Reports on Diphtheria, Typhoid Fever and Syphilis—Dr. Don M. Griswold, Iowa City. Discussion opened by Dr. M. J. Fitzpatrick, Mason City, and Dr. B. L. Gilfillan, Keokuk.

12:00 Luncheon.

1:30 P. M. Business meeting.

2:00 P. M. Question box—Dr. H. L. Sayler, Des Moines, presiding.

3:30 P. M. Control of Scarlet Fever Epidemics with Special Reference to Immunization—Dr. Paul S. Rhoads of the Scarlet Fever Committee, Chicago. Discussion opened by Dr. H. R. Sugg, Clinton, Dr. E. Marsh Williams, Oskaloosa, and Dr. A. L. Bryan, Muscatine.

This association is composed of health officers and all others interested in public health work. The meeting place will be at the Hotel Chieftain.

All physicians are cordially invited.

#### **TAKE DUE AND TIMELY NOTICE**

Your 1927 membership card will be your mark of eligibility to register at the Seventy-Sixth Annual Session, Council Bluffs, May 11, 12 and 13. Have you paid your 1927 dues to your local Secretary?

**APPLY FOR CERTIFICATE WHEN BUYING RAILROAD TICKET**



### ILLINOIS STATE MEDICAL SOCIETY SPECIAL TRAINS TO A. M. A. MEETING

Pennsylvania Railroad—Leave Chicago 1:00 p. m., May 15-16; arrive Washington 9:00 a. m., May 16-17.

Additional special car service on the Liberty Limited, May 14 and 17 and the Pennsylvania Limited, May 14, 15, 16 and 17.

Liberty Limited—Leave Chicago 1:00 p. m., arrive Washington 9:00 a. m.

Pennsylvania Limited—Leave Chicago 5:30 p. m., arrive Washington 4:20 p. m.

Address inquiries and reservation requests to—Mr. W. E. Blachley, Division Passenger Agent, room 524, Union Station, Chicago.

### AMERICAN BOARD OF OTOLARYNGOLOGY

The following examination dates have been assigned by the American Board of Otolaryngology: Washington, D. C.—Episcopal Eye, Ear and Throat Hospital, Monday, May 16, 1927, at 9:00 o'clock.

Spokane, Washington—Saturday, June 4, 1927 at 9:00 o'clock.

H. W. Loeb, St. Louis, Mo.

### PERSONAL MENTION

Dr. A. C. McPhaden, who has been a member of the Le Mars Clinic, and a successful practitioner there, for several years, has decided to make a change and will leave in a few weeks for California, where he will locate and practice his profession.

Doctor and Mrs. E. E. Heaton, will leave for New York, where they will embark for a world cruise. The trip as planned, is exceptionally comprehensive and takes in all of the interesting lands and places of the world. Leaving New York Dr. and Mrs. Heaton will go to Panama Canal from there to Honolulu, the Philippines, Japan, China, Java, Burma, and will make a stay of nearly three weeks in India. Their trip will take them across India and from there to Egypt, Palestine, Jerusalem, Turkey and they will finally land at Naples, Italy and will then cross Italy to France and Switzerland going from there to England, from where they will embark again for the United States on a Cunard Line boat. Dr. Heaton has consented to write of his travels from India and the letter should prove interesting indeed. In his absence Dr. F. B. Leffert will take charge of the practice of the medical firm.

Dr. Byron Biersborn of Minneapolis, a graduate B.A., Iowa State University and M.D., from the University of Minnesota, has entered into partnership with Dr. I. D. Kauffman of State Center.

Governor Hammill has reappointed Dr. H. L. Saylor, Des Moines; Dr. H. R. Sugg, Clinton and Dr. W. D. Hayes, Sioux City, members of the Iowa

State Board of Health with two new members, Dr. D. C. Steelsmith, Dubuque and Dr. A. A. Robertson, Council Bluffs.

Dr. J. H. Campbell of Jefferson, Georgia, has located in Dubuque and will become associated with H. B. Gratiot.

Dr. W. F. Carver, Jr., after two years' service in Denver City Hospital, has located in Fort Dodge.

### OBITUARY

Dr. James Edmund Calhoun of Dubuque died at his mother's home in Atlanta, Georgia, February 20, 1927. Dr. Calhoun married Miss Sophie Henker of Dubuque, April 20, 1926. Soon after their marriage Dr. and Mrs. Calhoun left for Vienna, Austria, for a period of graduate work in his specialty, ophthalmology and otology. Scarcely had he become settled in Vienna when he was taken seriously ill and was removed to the American Hospital in Paris, where he remained several weeks before he could be taken to America. On reaching New York it was necessary to take him to Mt. Sinai Hospital where he remained some time before he could be moved to his mother's home at Atlanta, where he remained until his death.

Dr. Calhoun was born in Purvis, Mississippi, November 18, 1886; graduated from the University of Mississippi and from the New York Eye and Ear College; practiced a year in Petersburg following his graduation. In 1918 he came to Dubuque where he became associated with Dr. H. B. Gratiot. Dr. Calhoun was a member of Mercy and Finley Hospital staffs. He was also a member of Dubuque County Medical Society and of the Iowa State Medical Society.

Dr. Edward B. Fulliam of Muscatine died at his home January 5, 1927, at the age of sixty-eight years. Dr. Fulliam was born in Muscatine, March 10, 1858. His father was a physician of some note and a pioneer in Muscatine. He first settled in Nauvoo, Illinois and when the Mormons moved on to Salt Lake City the Fulliam family moved to Muscatine. Dr. Edward attended Rush Medical College and graduated from Bennett Medical College in the class of 1879. He was an eclectic practitioner. Dr. Fulliam enjoyed the confidence of the people of Muscatine to an exceptional degree and was often placed in positions of trust and responsibility in local and civic affairs.

### TAKE DUE AND TIMELY NOTICE

Your 1927 membership card will be your mark of eligibility to register at the Seventy-Sixth Annual Session, Council Bluffs, May 11, 12 and 13. Have you paid your 1927 dues to your local Secretary?

## BOOK REVIEWS

## THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR

Volume 6, Sanitation in the United States, by Colonel Weston P. Chamberlain, M.C.; in The American Expeditionary Forces, by Lieutenant-Colonel Frank W. Weed, M.C. Prepared Under the Direction of Major General W. W. Ireland, The Surgeon General, U. S. Army. Government Printing Office, Washington, D. C., 1926.

This volume of 1141 pages is divided into two sections. The first section relates to Sanitation in the United States and discusses in detail the sanitation and sanitary inspection of the several camps. Sanitation in the United States is divided into twenty-two chapters, including as many subjects relating to provisions for the health of the soldiers.

The second section, relating to Sanitation in the American Expeditionary Forces, is divided into fifteen chapters, each chapter discussing certain features of combat division service. One point we note in particular, the bathing and disinfection of the 42nd Division, which we had read and published in part in the history of the combat activities of the 42nd Division as being in part our own Division and which is referred to in this volume of War History in the following language: "The following account of the operation of the skin hospital of the 42nd Division, A. E. F., when that Division was in the Baccarat sector in the spring of 1918, may be taken as an example of the best means adopted in the American Expeditionary Forces for the prevention and control of scabies in the combat divisions."

This volume may be regarded as a full and complete exposition of army sanitation.

## AN INTRODUCTION TO BIOLOGY

By Alfred C. Kinsey, Sc.D. (Harvard) Associate Professor of Zoology, and Waterman Research Associate, Indiana University, 430 Illustrations. J. B. Lippincott Co.

This is a story of life in which the science of life is studied. The author, in this interesting book, has taken up the subject of life in all its phases, animal and plant. What life is may not be defined but the phenomena of life can be seen on every hand. Professor Kinsey, in showing life as it exists in so many forms, presents it in the form of little stories that serve to make the subject interesting to every class of readers.

We have presented Animal Groups and Plant Groups, Animal and Plant Structures, Reproduction Embryology, Protoplasm, Building Foods and Protoplasm, Using Foods and Protoplasm. We pass on to Human Hygiene, Heredity and Environment, the Value of Scientific Research, New Kinds of Organisms, Evidences of Change. From these funda-

mental observations, the author passes on to their relation to the world about us in which life is manifest, as in Forests, Insects, Insects in Disease, Life Zones, Parasites, Fresh Water Biology, Geographic Distribution, Mountain Biology and many other things in these various relations.

It is a book of rare interest, not only to biologists but to the general reader who may not be especially trained in biology.

## AN INTRODUCTION TO THE PRACTICE OF PREVENTIVE MEDICINE

By J. G. Fitzgerald, M.D., L.L.D., F.R.C.S., Professor of Hygiene and Preventive Medicine and Director, School of Hygiene and Connaught Laboratories, University of Toronto; Assisted by Peter Gillespie, M.Sc., C.E., M.E.I.C., Professor of Civil Engineering, University of Toronto, and H. M. Lancaster, B.A. Sc., Chief Dominion Analyst, Department of Health, Canada, Ottawa, Formerly Director of Division of Laboratories, Provincial Board of Health, Ontario, and Demonstrator of Sanitary Chemistry, Department of Hygiene and Preventive Medicine, University of Toronto; and Chapters by Andrew Hunter, M.A., M.B., F.R.S.C., A. H. W. Caulefield, M.B., J. G. Cunningham, B.A., M.B., D.P.H., and R. M. Hutton, B.A., (Oxon.). Second Edition. The C. V. Mosby Co., St. Louis, Missouri, 1926.

The field of preventive medicine is not one of interest solely to the full-time public health official and his subordinates but one in which every physician should and must be actively interested if the aim of the system is to be realized. It is the duty of every physician to acquaint himself with the scope and practice of preventive, as well as curative, medicine so that he may be able to advise the patient, entrusting his health to his care, not only as to treatment of diseases present but also how he may protect himself and his family from contracting certain diseases. With such a thought in mind, Dr. Fitzgerald has prepared this second edition of his volume on the practice of preventive medicine.

In the early chapters of the volume the author has discussed the known communicable diseases suggesting, where possible, concrete methods to be followed in their prevention. Following this section are chapters dealing with water, milk and foods as sources of danger in the transmission of disease. There is a very valuable chapter dealing with diets and dietary defects. Domestic and community sanitation, school hygiene, industrial hygiene, and problems of ventilation are all given appropriate consideration.

As a systematic guide to the student the book is valuable. It will fit him to fulfill the duties of advisor to his patients in matters pertaining to pre-



ventable disease and furnish an introductory ground work for further study. To the public health official and particularly the public health nurse it will furnish up-to-date information regarding the newer laws and newer practices in matters of public health. The well chosen illustrations add materially to the usefulness of the book.

R. R. S.

---

### COLLECTED PAPERS OF THE MAYO CLINIC

The General Index Volume of the Collected Papers of the Mayo Clinic and the Mayo Foundation, 1884 to 1925, Inclusive. Octavo Volume of 227 Pages. W. B. Saunders Company, 1926. Cloth \$5.

This is a convenient index volume to the Collected Papers of the Mayo Clinic and the Mayo Foundation, including Volumes one to sixteen, 1884 to 1925 inclusive, and volumes one and two published prior to 1909. The immense number of papers and the great variety of subjects treated renders such an index indispensable for reference. These volumes constitute a medical library in themselves and the absence of a copious index would render a search for the desired reference a difficult undertaking. We feel quite sure the readers of the Mayo Clinic and Mayo Foundation will welcome this volume which is prepared with much labor and time.

---

### MATERNAL MORTALITY

The Risk of Death in Childbirth and from all Diseases Caused by Pregnancy and Confinement. By Robert Morse Wordbury, Ph.D., Department of Labor. Children's Bureau. Government Printing Office, Washington, D. C.

The purpose of this pamphlet issued by the Children's Bureau of the Department of Labor is to show that many of the dangers of childbirth are in a great measure preventable, and that the mortality rate is excessive. After an introductory chapter relating to maternity mortality and the causes of stillbirth, extensive statistics are presented on the several factors involved.

The prevention of maternal mortality occupies the first place and consist fundamentally in better care of the pregnant woman, more and better hospitals, better trained physicians, midwives and nurses. There are, of course, ideal and there are practical conditions. State laws have provided fairly well trained obstetricians and nurses. There are probably less hospitals than there should be but the number is constantly increasing. Probably the most serious factor is ignorance and poverty. There are in every community agencies which if properly co-ordinated tend to overcome in a measure the unfortunate effects of ignorance and poverty. To one familiar with the conditions that existed in the time

of Dr. Oliver Wendell Holmes and Semmel Weiss, a great improvement is apparent, and is still going on. Statistics are interesting but there are other facts to be considered.

The whole subject of disease is complex and difficult and it is not difficult to find grounds of complaint. We do not think the Department of Labor is as yet the best source of information in matters of medical practice. We feel quite sure that the medical profession is still watchful of the progress of treatment in all branches of medicine.

---

### THE DENTAL ASSISTANT

By Emma J. McCaw, R. N., St. Petersburg, Florida. Illustrated. The C. V. Mosby Company, St. Louis, 1926.

This small book of 119 pages is presented for the purpose of showing what a dental assistant can do in the way of relieving the dentist of much of the drudgery of his office and work. Her duty would be to keep the office clean, the instruments in place and to receive patients on an errand that is never altogether agreeable. She would be of material aid in taking histories and keeping in proper form essential records. It is not necessary here to point out the duties she could perform in making the work of the dentist more attractive and efficient. A study of this book will aid the nurse who is contemplating taking up the duties of a dental assistant.

---

### SILVER COMPOUND

Silver nitrate first demonstrated the bactericidal property of silver. This was, obviously, an invitation to the chemist to devise a silver compound that could be used freely in solution, as silver nitrate could not. Especially desired was a silver salt that would kill the gonococcus without irritating the urethra, for it was soon learned that silver was especially efficacious as a gonococcide. To the majority of silver compounds offered from time to time one of two objections is made by the patient: first, they hurt; second, they left dark stains on the linen.

Now comes a comparatively new silver iodide preparation—one that actually protects the silver and the iodine from the action of light, and yet leaves its activity as a germicide apparently unimpaired. Neosilvol, as this product is called, is said to be twenty times as active as pure carbolic acid (in other words, to have a phenol coefficient of twenty) in contact with the gonococcus, and at the same time to be notably bland in its effect upon the inflamed tissues and free from the dark-staining tendency that characterizes other silver preparations.

Further particulars are offered to the readers of the advertisement on neosilvol which appears on another page of this issue.

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, MAY, 1927

No. 5

## DIAGNOSIS AND SURGICAL MANAGEMENT OF TUMORS OF THE BREAST\*

JABEZ N. JACKSON, M.D., Kansas City, Missouri  
President-elect, American Medical Association

Tumors of the breast is an old subject, and yet there are some factors which I think cannot be too frequently emphasized in order that they may be better understood. Judging from statistics as published, cancer apparently is increasing. Whether this is actually true or not is probably a question. The fact is that in these days in all subjects attention is given more and more to the diagnosis of conditions, and the result is that diagnoses are now being made that in former days were not made. We are finding cancer in various parts of the body more frequently than in years gone by.

There are certain things we should know about cancer. Perhaps the most important thing we should know is that to begin with every cancer is purely local, therefore the corollary follows that if every cancer case could be operated on in this early stage, the condition would be cured. In connection with early diagnosis Bloodgood has shown that in cancer of the lip, which is a sensitive area, the slightest soreness or ulceration is immediately obvious. He also has shown that in cases of cancer of the lip operated inside of sixty days, there is a permanent cure. However, cancer in a locality that is deep is not painful or sensitive and is therefore not so readily diagnosed. History has shown that 95 per cent of cancers of the breast are accidentally discovered by the patient as a lump in the breast without other symptom. I mention this because of the suspicion of many physicians and all women that pain must be connected with the tumor or it is not cancer. There are other conditions in the breast where pain is the first symptom, and these are rarely cancer. The first symptom being a lump in the breast, the woman who finds a lump in the breast is up against a serious problem.

However, not every lump in the breast is a cancer, therefore it is necessary to find out as nearly as possible what the condition may be. In the first place the most important thing to determine is the differentiation between a tumor of the breast and a lump due to inflammatory processes. However, the diagnosis of an inflammatory growth is comparatively easy. First, practically all inflammatory processes in the breast are accompanied by a more or less diffuse infiltration, which is not true of a tumor. For instance, chronic mastitis. I have oftentimes in former years had women brought to me with a diagnosis of cancer of the breast, a case in which the patient had a great deal of pain, and in making examination the doctor could feel a lump and immediately because of pain believed the condition to be cancer.

Probably the most important thing therefore in suspected cases is to know how to make a correct examination of the breast. The breast is a lobular organ. In the attempt to make differential diagnosis the palm of the hand should be placed flat on the surface of the breast, and the breast moved between the hand and the fixed wall of the chest. If in making pressure over the lump we cannot outline its border, ordinarily we are dealing with an inflammatory process of some sort, whereas if dealing with a true tumor we ordinarily have the sensation of feeling of a sack of sand with a marble in it. This is particularly true in the type of solid tumors of the breast such as fibroma, fibro-adenoma, etc. There are, however, certain cysts of the breast with fluid contents in which this symptom is a little misleading because in many cases the cyst is so tight that in examining it the examiner thinks it is a tumor. On the other hand, we must bear in mind that there is a type of carcinoma in which the tumor spreads out and the feeling of a border is lacking. As a rule, however, there is an extreme induration of the tumor. Therefore we should carefully examine all tumors of the breast in an effort to determine whether they are inflammatory in nature or a neoplasm.

\*Address given at Diamond Jubilee Anniversary of Iowa State Medical Society, Des Moines, Iowa, May 12, 13, 14, 1926.



Finally, if we have made a diagnosis of tumor as distinct from an inflammatory process. Extensive study of this subject has shown that practically 80 per cent of all tumors in the breast are primarily malignant, and when we remember that 50 per cent of the non-malignant tumors eventually develop malignancy, it is safe to say that 90 per cent of tumors are probably malignant. Age also assists in guiding our diagnosis. While it is possible to find carcinoma in the twenties, and very rarely under, we must remember that at this age the chances of cancer are so remote that most of the cases found are non-malignant; but past the age of fifty the possibilities of malignant tumor are nearly 90 per cent. Today I think, however, that the percentage of carcinoma is showing up less by reason of the fact that women are presenting themselves earlier.

Supposing we are dealing with a tumor of the breast, what course shall we pursue?

1. Obviously there is no treatment that will get rid of it except removal with the knife.

2. If allowed to go, the tumor probably undergoes secondary malignancy.

3. It is impossible in the early stages to determine whether a tumor is simple or malignant. Therefore the one lesson which I would like to preach to you today is that every lump in a woman's breast about which there is the slightest doubt should be removed for positive diagnosis. That does not mean that you will mutilate every woman with simple tumor of the breast by removing the entire organ; but the tumor itself should be removed. Frozen section diagnosis also is not infallible. The rule that I have made for my own guidance is this: If in examination of tumor the naked eye inspection suggests carcinoma, I treat the case as a carcinoma regardless of the report of the pathologist. On the other hand, though the tumor appears to me to be simple, if the pathologist finds something suspicious I accept his dictum. In other words, no tumor of the breast should be considered simple until absolutely proved to be so. If a benign tumor, simple operation will remove the tumor with only a small scar to take the place of the tumor. If this method were followed I am sure many cancers would be removed before their development.

4. Another fact we must now remember is that cancer is spread by the lymphatics. In Johns Hopkins Hospital, after doing complete operation it is invariably the rule to examine the axillary glands. The observers there found two types of patients: Those in whom cancer cells already were shown in the axillary glands, and

those in whom there was no axillary involvement. In the latter 85 per cent of the cases were cured by operation. Contrast that in the same Clinic with an average of 42 per cent. That means that forty-three women are dying from cancer of the breast through neglect and delay of operation. If we can once have women reach that stage of education when, upon first finding a lump in the breast, they will call help, these cases can be submitted for operation before the cancer becomes inoperable. That is a point I want to emphasize in connection with diagnosis.

Now just a few words relative to the proper surgery to employ in case a diagnosis of cancer has been made. We must recognize that there are several factors to be considered in discussing the surgery of cancer. First, we are dealing with a death-producing and life-destroying disease, and we should try to save that woman's life if possible at whatever expense of mutilation may be necessary. This means that there is no valid excuse for any surgeon to fail to do the necessary radical operation for tumor of the breast, and in operating he should pay attention to the lymphatics. There should be an adequate removal of the adjacent tissues of the breast and the lymphatics. Cancer in any situation that has passed beyond the first chain of lymphatics is hopeless. There are primary and secondary glands. When you have a case of tumor with involvement of the glands in the neck it is practically incurable, therefore removal of the subclavicular nodes is a useless operation. If you find that there is extension beyond the realm of surgical access, if there is complaint of rheumatism and neuralgia in the shoulder and elsewhere, all those cases should be examined by the x-ray to determine whether we have not already a metastasis in the lung or in the bone. But if the case is not obviously hopeless, and particularly if it is in the early stage where the condition gives you a justifiable excuse for operative procedure, operation is urged. Let me say this: We hear a great deal of some men advising the extirpation of these tumors with the cautery or other method. Whenever it is advisable to use a cautery for cancer of the breast it should be used to remove the tumor and not to amputate the breast.

It is possible to cause an extension of the cancer during the process of operation by improper manipulation. Therefore, as originally brought out by Halstead and Meyer, the lymphatics should be cut off distally before any manipulation of the breast. When a case presents for operation we should completely circumscribe the

cancer and then start the incision at the circumference and work toward the breast, not beginning at the center. In other words, avoid spreading the disease process by manipulation of the cancer during surgical procedure.

Likewise one may squeeze out a few cancer cells in the wound, thereby producing contamination. Therefore we should exercise more care in protecting the surface in a cancer case than we would in a case of ordinary infection.

In every cancer operation, before the wound is closed I irrigate it thoroughly, in the thought that possibly there is a stray cell in the wound which would grow and cause a recurrence of the original cancer. I do know that since I have adopted this preventive treatment I have had very few local recurrences.

I doubt if we ever will see any improvement or any extension of the surgical possibilities of operation for cancer. I think we have gone just as far as we can go pathologically and surgically. Therefore we must bear in mind the one fundamental fact that the best chance we have of curing these patients is to get early operation, and then comes the corollary that the best chance of getting a woman for early operation is to have a record of satisfactory results when we are through. I would not recommend the Halstead method of removal of cancer. We must consider the artistry side of surgery and adopt some method whereby the operated area can be covered over and primary union be secured. You can under cut the flap and pull it over by any method you prefer. Obviously each operator is a little bit partial to his own method with which he is familiar. Secure primary coaptation and a decent looking wound. Further than that, get a recovery that is functionally good. If the woman recovers from the condition but has lost the function of the arm, that is not a desirable result. No incision that makes a wound crosswise of the arm is a good procedure. Whatever method we pursue we must obviate that. I do want to call your attention to one very simple and important point. It makes no difference what sort of operation you do for cancer of the breast, if you dress the arm down at the side of the body you will have a hard time inducing the patient to get the arm up in a position which will enable her to use it. In every case of cancer of the breast I dress the case with the arm up above the head, and she is compelled to use the arm actively in twenty-four hours. She never will have trouble getting the arm down, but if you treat it down she will have an awfully hard time getting it up and using it.

## THE TREATMENT OF ADVANCED CARDIAC FAILURE\*

FRED M. SMITH, M.D., Iowa City

The treatment of early cardiac failure is rarely difficult. The restriction of exercise and the administration of digitalis is usually sufficient to restore the cardiac function. When, however, the heart is extensively damaged and there has been one or more previous attack of cardiac failure the task is not so easy and may demand the almost resourcefulness on the part of the physician. Success in the treatment obviously depends on a clear conception of the general condition of the patient and the factors contributing to the cardiac failure. The most satisfactory results are obtained by combining all the available means which will promote the restoration of the cardiac function. Seldom, however, are the conditions the same in any two patients and therefore the measures employed must be varied to meet the individual need.

In advanced cardiac failure every effort should be made to rest the heart. The heart is not only tired but because of the impaired circulation, the entire body is in an exhausted state. The patient should therefore be put to bed at as nearly absolute rest as possible. It is very important that the bed be comfortable and provided with a back rest. The patient should be spared of all unnecessary effort in the matter of taking food and liquid and in the use of the ped-pan. Careful attention to these details not only adds greatly to the comfort of the patient but promotes recovery.

Not infrequently the heart may be relieved of some of its excess load soon after the patient is first seen. In the plethoric cyanotic individuals, particularly those with hypertension, the removal of 500 c.c. of blood from the vein of the arm is usually followed immediately by improvement in the condition. Before this measure is employed it is usually best to give the patient  $\frac{1}{4}$  grain morphine hypodermatically in order that he may not be upset by the procedure. The blood should be allowed to escape freely through either a slit in the vein or a large needle. If the peritoneal cavity contains a large quantity of fluid an abdominal paracentesis can be done following the venesection. Here again the disturbance to the patient should be reduced to the minimum by the use of novocain and a sharp needle. The benefit derived from these measures is often striking and

\*From the Department of Internal Medicine, State University of Iowa. Read before the Polk County Medical Society, February 22, 1927.



no doubt promotes a favorable influence on the latter treatment.

If there is excessive fluid in the pleural cavity, the question of a paracentesis should be considered if the general condition or the patient justifies it. There is, however, a certain risk connected with the procedure which should be mentioned to the patient or relatives, before proceeding.

Sleep is very essential to the favorable progress of the patient. It affords one of the best means of resting the heart and quieting the nervous system. It should therefore be induced if necessary by codein or morphine. Because of the frequent extreme restlessness and irritableness from the exhausted condition, it may be advisable to begin at once the administration of sedatives throughout the day. Luminal, grs.  $\frac{1}{2}$  after meals and at bed time is frequently sufficient to relax the patient and permit a restful sleep after the first night. The dyspnea often prevents sleep after the patient has been relaxed by sedatives. In those with hypertension, and particularly those with cardiac asthma, great relief may be obtained and sleep promoted by the use of the nitrites. We usually employ nitroglycerin and direct that a  $\frac{1}{100}$  grain tablet be placed under the tongue every two hours during the time the patient is awake. The load on the heart is lessened by the reduction in blood-pressure and the drug has a further beneficial effect because of the dilating action on the coronary arteries.

The diet is very important, particularly when edema is present. In an investigation, now in progress, we have been able to restore the cardiac function by a change in diet in several instances after the remedies ordinarily employed in the treatment of cardiac failure failed. Because of the exhausted condition of the body and the impaired function of the gastrointestinal tract and frequently the kidneys, the diet should not only provide sufficient energy, but consists of foods that are easily assimilated. The diet that we employ has an energy value of 2100 calories and consists of 44 grams protein, 110 grams fat and 222 grams carbohydrate. It is supplied in the form of fruit juices, vegetables, purees, milk, cream, butter, eggs and cooked cereal. The carbohydrates are increased by the addition of sugars, as dextri maltose, glucose and lactose. Small meals are given to avoid gastric retention and excessive fermentation. In those with edema the liquid intake is limited to 1500 c.c. and the sodium chloride is reduced to the minimum. The diet is gradually increased after the excess fluids

are eliminated. If the cardiac failure has existed for some time the subject is frequently greatly undernourished. A patient now under observation, recovering from an attack of cardiac failure which began nine months ago is twenty-five pounds under her usual weight. Following the disappearance of the edema and shortness of breath, the diet was gradually increased. She is now getting a 60 gram protein diet with an energy value of 3000 calories. It is believed that the improvement in the nutritional state of this patient is very essential to the maximal restoration of the cardiac function. Should she have been obese the diet would have been sufficiently restricted to permit a gradual loss in weight. The reduction in the weight should, however, be carefully supervised, otherwise the heart may be definitely damaged.

The patient with cardiac failure should have a daily bowel movement. The diet above outlined because of its fruit and vegetable content will frequently produce one or more movements of the bowels during the twenty-four hours. When there is excessive edema it may seem desirable to promote elimination through the bowels by the administration of hydrogogues or saline cathartics. Except for the occasional instance, and then only for a short time, it is not advisable to resort to violent purging of the bowels to remove excess fluid because of the discomfort produced by the irritation of the intestinal tract and the extra exertion from frequent use of the bedpan. In it is preferable to employ mild laxatives when necessary and depend on the elimination of excess fluid by other measures.

The preparation of standardized digitalis employed is immaterial so long as it is given in sufficient amounts to produce physiological effects. We use the tincture and seldom find it necessary to resort to intravenous preparation. If the patient has not taken digitalis prior to the admission to the hospital he is given one dram of the tincture in three divided doses daily for the first few days. In occasional instances  $1\frac{1}{2}$  drams is administered during the first twenty-four hours. After the third or fourth day, depending on the condition of the patient and whether or not physiological effects have been obtained, the dose is reduced to 15 minims after meals. It is usually possible to continue this dose for some time without getting toxic action of the drug. In some it may be necessary to reduce the dose to 10 minims after a few days. The physiological action of the drug is indicated when auricular fibrillation is present by a slowing of the cardiac rate. The 20 minim dose three or four times a

day should be continued until the cardiac rate is reduced to within reasonable bounds or toxic manifestations appear. After the rate has once been reduced to the desired level, the digitalis should continue to be given in sufficient amount to maintain this level. In auricular fibrillation, it is usually necessary to continue the use of digitalis for at least a greater portion of the time throughout life. The return of the cardiac failure is often permitted by discontinuing the drug. The patient can usually be taught to regulate the size of the dose by the cardiac rate.

When the cardiac rhythm is regular, the physiological action of digitalis is indicated by a reduction in the respiratory rate and if edema is present by an increase in the urinary output. In extreme cases where the response to treatment may be poor, it is often difficult to recognize the early toxic manifestations of the digitalis. It is obvious that the dose should be reduced before such advanced toxic symptoms as nausea, vomiting and diarrhoea appear. The appearance of premature beats, feeling of exhaustion and even short intervals of delirium often precede the onset of the more advanced toxic manifestations. The continuation of the drug after the onset of the toxic action not only imposes an additional handicap on the heart, but is occasionally followed by sudden death.

It is frequently advisable to continue the digitalis, or at least prescribe periodically, particularly to the arterio-sclerotic after the cardiac function has been restored. Digitalis employed in this manner tends to serve as a safeguard against the return of the cardiac failure when a little excess strain is placed on the heart.

Caffein, theobromin and theophyllin, particularly the latter two, are very valuable drugs in the treatment of cardiac failure. When edema is present theobromin usually employed in the form of diuretin and theocin, the synthetic preparation of theophyllin, greatly promotes the elimination of the excess fluid. These drugs frequently have to be discontinued in a short time because of their irritating action on the gastrointestinal tract. Euphyllin, a theophyllin preparation, is very soluble and may be given for weeks without producing gastrointestinal disturbance. Theobromin and theophyllin have very definite dilating action on the coronary arteries which probably accounts for their more favorable effect in the cardiac failure associated with arteriosclerosis. I therefore often employ theocin or euphyllin in the early treatment of cardiac failure, particularly where there is arteriosclerosis, even though there is no edema and feel that they

definitely promote the restoration of the cardiac function. Euphyllin may be used to an advantage with digitalis in preventing the return of the cardiac failure.

Novasural, judiciously employed, is a valuable drug in the treatment of advanced cardiac failure with edema. We have at present a patient in the University Hospital in whom all the other means at our disposal failed to improve the condition. Following the administration of novasural and ammonium chloride she lost forty-three pounds in weight. She is now free from edema for the first time in months and the shortness of breath has entirely disappeared.

Novasural is administered intramuscularly or intravenously in doses of  $\frac{1}{4}$  to 2 c.c. It is advisable to begin with very small doses,  $\frac{1}{4}$  to  $\frac{1}{2}$  c.c., otherwise an intense gastroenteritis may be produced. This small dose may be sufficient to produce a marked diuretic effect. It is seldom necessary to give more than 1 c.c. twice weekly. Novasural, because of its toxicity, should not be used until other measures have been exhausted. If not properly controlled, it is believed to be injurious to the kidneys and liver.

Occasionally the novasural alone may not produce a diuresis. Keith and his coworkers have observed that the administration of ammonium chloride, prior to and at the time of the use of the novasural will greatly promote the diuretic effect. The first dose of novasural to the patient, cited above, did not produce a diuresis. She was then given ammonium chloride, grains XXX three times daily. Thereafter following each administration of the novasural there was a marked increase in the urinary output which continued until the excess fluids were eliminated. She received in all four doses of  $\frac{1}{2}$  c.c. each at three day intervals.

After the symptoms of cardiac failure have subsided every effort should be made to further restore the heart to its maximum efficiency. The extent to which the cardiac function may be restored obviously depends on the pathological changes in the heart and whether or not there are contributing factors which may be removed. In general when there has been one or more previous attacks of cardiac failure the changes of the restoration of a very satisfactory function are poor. A prolonged rest is necessary for the realization of the maximum benefit of the treatment. If there is an infection of the heart the rest period is even more important and should be continued until after it has subsided. After exercise is permitted it should be increased very gradually and never to the point of shortness of



breath. If the patient avoids becoming winded he may be certain that he is not placing an excess load on the heart. It is well that he understands in the beginning that he has a permanent disability within the limits of which he must live to avoid further trouble.

It is advisable to continue for some time the administration of the digitalis in small doses. When there is auricular fibrillation sufficient digitalis should be given to control the cardiac rate. In those with arteriosclerosis, theobromin and theophyllin preparations may advantageously be employed with the digitalis.

The convalescing period is the opportune time to remove those factors which may be contributing to the cardiac weakness. Focal infection, whenever possible, should be eliminated, providing the risk and sacrifice to the patient is not too great. When there is a hypertension, the blood-pressure is frequently reduced by regulation of the diet. In the obese the reduction in weight is very important. This not only removes a great load from the heart, but often favorably influences an associated hypertension. The habits of living in general, should be carefully studied and regulated to fit the disability of the individual.

---

### SOME CLINICAL ASPECTS OF TOXIC GOITER

---

C. B. LUGINBUHL, M.D., Des Moines

With goiter papers filling our current periodicals and being read to us at all and sundry medical meetings, the man who has the temerity to present another goiter paper probably owes his readers an apology. It is axiomatic that in medicine the active discussion of any subject suggests that it is an unsolved problem, and certainly a study of any ductless gland still presents such a debatable question. "We find ourselves", as Harvey Cushing has pointed out, "embarked on the fog-bound and poorly charted sea of endocrinology. It is easy to lose our bearings for we have, most of us, little knowledge of seafaring and only a vague idea of our destination. Our motives are varied. Some unquestionably follow the lure of discovery; some are earnest colonizers; some have the spirit of missionaries and spread the gospel; some are actuated merely by the prospect of gain, and are running full sail before the trade wind". I cannot presume to class myself with any of these mariners; I merely aspire to discuss some bits of experience I have

gleaned while employing the charts and compasses discovered by other men.

The distinction between toxic adenoma and hyperplastic goiter is a pathological rather than a clinical one, and I shall not enter into a detailed discussion of the pathological picture of goiter. Suffice to say that while the pathologist can draw a hard and fast line between toxic adenoma and hyperplastic goiter, there is no clinical criterion which would enable us to distinguish the one from the other, for the presence of an adenoma does not preclude hyperplasia. In a general way, we expect to find toxic adenomas in our older patients for most adenoma patients give a history of goiter dating back many years, but hyperplastic goiter may develop in any decade of life, from the first to the eighth, thus robbing the age incidence of much of its value in diagnosis. Differences in blood-pressure may prove of value, for in toxic adenoma of long standing—and owing to the insidious onset of toxic symptoms most of these cases are of long standing when they come under the physician's care—there is usually a hypertension, both systolic and diastolic pressure being increased, while in hyperplastic goiter there is often an increased pulse pressure, owing to a normal or slightly increased systolic pressure with an abnormally low diastolic pressure. The real value of these observations must, however, be proven by further clinical studies. Carlson says that in hyperplastic goiter and in toxic adenoma alike we have to do with a hyperthyroidism, that physiologically we can draw no line between the two. If physiologically the processes are the same, their clinical resemblance is a foregone conclusion.

Beguiling as is the subject of etiology, I shall not discuss it since in the classes of goiter here considered, the etiology rarely has any bearing on the clinical course of the disease. In toxic adenoma, the time when preventive treatment might have been effectively carried out, lies some years, often some decades in the past. Occasionally, however, it has been my impression that the immediate cause of the quiescent adenoma becoming toxic has been infection—sometimes from some focus as from apical abscesses of the teeth, but more often as an aftermath of an acute infection, particularly our so-called "flu". The former cases are of particular clinical interest since a rational therapeutics suggests the elimination of the focus of infection if permanent results are to be obtained from medical or surgical treatment of the goiter. While fright, worry, fear and various other psychic stimuli have been assigned an important role in the etiology of hyper-

plastic goiter, most cases in my own experience have been of gradual onset without assignable cause, if we except vasomotor instability as a definite, almost invariable predisposing factor. Notable exceptions have been a case in which typical symptoms of hyperthyroidism developed following a dog bite, in a young woman whom I had examined only a short time before and had found entirely well, and two cases in which the patients first noticed symptoms following the death of their husbands.

In the case of the typical thyroid patient, the diagnosis is patent to the most casual observer. It is a very different matter when the physician sees the patient in the early stages of the disease before the symptoms are typical, when they are hardly more suggestive of hyperthyroidism than of tuberculosis or neurosis; or when the patient does not come under his care until the goiter is, so to speak, "burnt out", and the secondary damage to the heart and to other parenchymatous organs dominates the clinical picture. Who can say how many of our coronary and cardiac accidents may be due to goiter?

In the incipient case, the enlargement of the thyroid may be slight, and the history may account for this enlargement as a colloid or adolescent goiter. There is no exophthalmos, and only a slight tremor or perhaps no tremor at all. But the patient gives a history of loss of strength and weight, of nervousness and of palpitation of the heart. There may be a persistent slight afternoon rise in temperature, while the basal metabolic rate is low, say from 15 to 20. We may have to do with an early hyperthyroidism, but the clinical picture may as well be that of an early tuberculosis or of a simple neurosis. When the usual diagnostic methods have been exhausted, including laboratory tests, the x-ray, and repeated metabolic rate readings, and the patient has failed to respond to rest treatment, I believe that a functional test of the patient's resistance may clear the diagnosis. A moderate increase of the patient's physical activities will materially increase the basal metabolic rate in the case of an early goiter, while it will have little if any effect in the case of a neurosis or an early tuberculosis.

With the thyrocardiac, the case is a very different one. Here the disease has been operative over a period of years, or has perhaps even burnt itself out; the classic symptoms of goiter may be absent, or be masked by the heart condition, and the basal metabolic rate is usually relatively low. Often the heart symptoms have been noted, but their etiology has been overlooked, and the treatment instituted has in consequence been without

avail. Lahey and Hamilton have formulated the following rules for use in the differentiation of goiter heart:

1. Every cardiac case in decompensation, or not in decompensation for that matter, with a goiter of whatever size or shape, and of however long standing without causing symptoms before the heart symptoms appeared, should be suspected of hyperthyroidism.
2. Every cardiac who has prominent or staring eyes should be suspected of hyperthyroidism.
3. Every case showing transient attacks of an established auricular fibrillation, where there is emaciation with pigmentation, should particularly be suspected of hyperthyroidism.
4. Every case with auricular fibrillation, with or without decompensation, in which there is a discrepancy between the patient's condition, the history and the heart findings, should be suspected of hyperthyroidism.

To me it seems that these rules might well be summarized in the single suggestion that the existence of heart disease should not be thought to eliminate the possibility of hyperthyroidism but rather to suggest the necessity for ruling it out, and that in the presence of auricular fibrillation, the possibility of hyperthyroidism is always to be considered. The recognition of the thyrogenic origin of the heart symptoms is of particular importance since it must radically influence our methods of treatment. Digitalis is only rarely of value in the treatment of the goiter heart, and may be of positive harm. This is not only true of the preoperative treatment, but also of the not infrequent cases which develop extra systoles or auricular fibrillation following operation. Since such symptoms in the goiter patient are usually the result of over-stimulation, it is not difficult to understand why we should avoid still further stimulation of an already overstimulated organ.

A hard fought battle ground is the question of when a toxic goiter is medical and when surgical terrain. Personally, I believe that every goiter requires medical treatment—for a certain period of time, and that the vast majority, once this preliminary period is past, then require surgical care. The toxic adenoma is always eventually surgical unless the heart is in such condition that it is deemed best to let the patient "do his own dying". The exophthalmic goiter patient will as a rule improve without operation, but this improvement is for the most part only temporary, and is followed in the course of months, or perhaps of years by another, and yet another flare-up until the disease has at last worn itself out—itsself and too often the heart of the patient as well. Moreover we must consider quantitative



as well as qualitative results. With many, perhaps most of these patients, the temporal and financial factor are of great moment. They cannot afford the luxury of years of invalidism, much less provide the pleasant, care-free atmosphere that would, or at least might aid in effecting recovery. They have a right to demand that method of treatment that will return them to a relatively normal life in the shortest possible time. If such a return is at all possible, it must as a rule be effected by surgery. Hence I believe that except in the unusual case, exophthalmic goiter ceases to be medical and becomes surgical when the toxic symptoms can be brought under control, i. e., when the disease is no longer progressive but has become regressive. Any method of treatment which destroys the hyperplastic or adenomatous tissue will give clinical relief. Today we have to choose between the x-ray and the scalpel as therapeutic agents fulfilling this requirement. But accurate dosage is as desirable, as essential in the treatment of goiter as in the treatment of any other grave disorder, and surgery is the only agent that permits of fairly accurate destruction of the diseased thyroid tissue today. Tomorrow may bring another answer to this problem for tomorrow is always Utopia.

In the medical treatment of these patients there is one measure that is always indicated, and that is almost always effective—this is rest; and a second measure that is almost as uniformly effective, Lugol's solution. Experience has led me to look on rest as a relative rather than an absolute quantity. A pleasant, quiet room in a smoothly run hospital is, of course the ideal, and your toxic goiter patient who comes from a home of ease and comfort will not do well with anything less than this ideal. But when economic conditions have forced the goiter patient from poor social environment to occupy a ward bed, I have found that the same improvement is possible here as in the private room. It is rather a question of comparatives—more quiet, more comfort, more relaxation—than of positives—absolute quiet, absolute comfort, absolute relaxation. The length of time required to obtain the maximal result from the rest treatment is also far less than we formerly believed. In a majority of cases, the result of rest is most apparent after only seven days of hospitalization, though the necessity for other treatment may make further prolongation of preoperative hospitalization desirable. This first week suffices to give the body and particularly the heart rest in so far as the condition of the patient permits of rest, and yet the time is not so long as to make the patient restive and discouraged.

The value of Lugol's solution in the treatment of goiter is still disputed, though it is difficult to see how any open-minded physician, who has seen the remarkable change that almost certainly occurs in these patients when they have been given Lugol's solution for some days, can still question its efficacy. They cease to toss about restlessly, the strained staring expression disappears though the exophthalmos persists, and the improvement in their nervous stability is not less marked. Nor does the rationale for its employment rest solely upon an empirical base. The acini of the untreated toxic goiter are characterized by the absence, or rather by the small amount of colloid present; in the patient who has been given Lugol's solution, the colloid content reappears and approaches normal, the thyroid gland becomes smaller, firmer, less friable, and is more readily removed at operation. In making the comparison of the histological picture, it has even been possible to rule out the element of error which must always be taken into account where the tissues studied before and after treatment are taken from different patients and, it may be urged, patients who perhaps had very different lesions. Comparative studies have been made of sections of the thyroid gland removed incidentally when a ligation was done and before iodine therapy had been instituted, and sections from the same gland, removed later following the administration of Lugol's solution. There may be little apparent benefit from this treatment during the first six to eight days, but after ten or twelve days there may be almost sudden improvement. The point of saturation has, so to speak, been reached, and once reached, there is nothing to be gained by continued treatment. The most favorable time for operation is, therefore, from ten days to two weeks after the patient has entered the hospital, unless some special indication, a heart lesion let us say, demands further treatment. While there has been a general impression that Lugol's solution should be employed only in the treatment of goiters of the hyperplastic type, and was of no value or perhaps even harmful in cases of toxic adenoma, this belief has not been borne out by our own experience. In the last two hundred and twenty-five goiters that have been operated, treatment with Lugol's solution in preparation for operation has been the rule, and only three of these patients have failed to respond to such treatment. These three were of the toxic adenoma group, it is true, but these failures are offset by so many cases of striking improvement in the same class of patients, that I feel that the patient with a toxic adenoma as well as the patient with a hyperplastic goiter should be

given a trial with Lugol's solution under close clinical observation though the most brilliant results are undoubtedly to be achieved in the acute, fulminating type of hyperplastic goiter.

Treatment with Lugol's solution is most effective when first employed, i. e., the patient who has been given this treatment, who has not been operated, and who returns with a second flare-up of the disease, will not give the same brilliant results from a second course of treatment as from the first, and he may even fail to respond to this treatment, another reason, I believe, for advising operation in spite of the marked relief afforded by rest and Lugolization. Jackson's faith in the effectiveness of Lugol's solution in goiter is so great that he believes that it may even be administered under home conditions, employing massive doses, and hospitalizing the patient for one day only before operation. While I admit the practical advantages of such a plan, particularly since a large number of our patients have been impecunious and by grace of this fact prevented from going elsewhere, I have lacked the courage to put so radical a procedure to the drastic test of operation.

If the fulminating type of hyperplastic goiter has given the most brilliant results, the toxic adenoma with hypertension, decompensation, and a relatively low basal metabolic rate, has assuredly proven itself the least amenable to treatment. Here the disease of the thyroid has finally been overshadowed by the secondary changes for which it is responsible, and the cardiovascular symptoms obviously denotes irreparable damage to the heart muscle. A majority of even these desperate cases may be brought safely through the ordeal of operation, but these patients recall the time-worn witticism that the operation is a success but the patient dies—not on the table nor during operative convalescence, it is true, but within a relatively short time after discharge. The patient returns home, but is never able to resume her normal occupations and eventually, usually months rather than years later, dies of heart failure. The death is not the result of operation, and was probably neither hastened nor delayed by it. Operation might accordingly well be refused in such cases if we can certainly differentiate the toxic from the irreparably damaged heart.

The presence of extra-systoles, and even of auricular fibrillation does not necessarily denote so gloomy a prognosis, since either may result from toxemia rather than from actual organic changes. Digitalis is rarely of value here, and may even be disastrous when it further stimulates

an already over-stimulated heart. The period of rest must usually be prolonged to enable the heart to come back. Lugol's solution is often, but not invariably of benefit. Quinidine may be of some service and merits a trial, under close clinical observation, I believe, though Grant feels that its employment is not without danger. The old saying that history repeats itself is as applicable to goiter cases as to politics. The symptoms noted when the patient first came under observation—tachycardia, temperature, extreme restlessness, even delirium, and in the case of these heart patients, extra systoles or auricular fibrillation—are prone to recur as post-operative phenomena, but these are for the most part transient manifestations which yield readily to the therapeutic measures previously employed. Extra systoles, or even auricular fibrillation occasionally occur post-operatively in a patient who has not previously manifested these symptoms, but in such cases they are particularly amenable to treatment.

Sedatives, usually luminal or the bromides, may sometimes be required to secure the rest which is so essential a part of therapy, but in many, perhaps in most cases, they can be dispensed with, and in any event, are best used only transiently. Various general measures contribute much to the success of treatment. These patients, with the exception of the occasional case of decompensation, should have liquids in large amounts before as well as after operation. The diet should be high in caloric value, the increase being particularly in the carbohydrates, while the proteins are kept relatively low. Individual cases will require individual measures, if pre-operative treatment is to achieve the best results possible. Yet it is remarkable how many cases, or rather how large a percentage of cases fit into the general schema. The case histories which I am presenting to you were chosen for the most part because they are typical, and therefore seem of particular interest, since the average goiter case runs a satisfyingly uneventful course.

### I. Hyperplastic Goiter

Name: F. L. Sex: Female. Age: Thirty-four.

Duration: Three and one-half years.

Symptoms: Irritability and nervousness, vasomotor disturbances, tachycardia, exophthalmos, dyspnoea, loss of weight, markedly enlarged thyroid, pronounced bruit.

Clinical Course: The symptoms, beginning with nervousness and irritability, have grown progressively worse during the past three and a half years and have been more marked for the past two years. Rest and Lugol's solutions for three weeks; ward bed.



B. M. R.: On entering hospital, plus 108; after ten days' hospitalization, plus 65; after seventeen days' treatment, plus 30; nine months after operation, plus 3.

Treatment: Subtotal thyroidectomy.

Pathological Report: Hyperplastic goiter.

Post-operative Course: Uneventful recovery. Has been able to perform her usual duties under unfavorable social conditions.

## II. Hyperplastic Goiter

Name: F. B. Sex: Male. Age: Nineteen.

Duration: One year.

Symptoms: In order of development—loss of weight, nervousness, weakness, enlargement of neck, exophthalmos, dyspnoea, rapid heart, tremor.

Clinical Course: Condition had gradually grown worse during past year. Entered hospital two and one-half months ago for treatment. Under rest, Lugol's solution, and luminal to secure rest, there had been rapid improvement. On discharge from hospital, returned to work and rapidly grew worse; two x-ray treatments with no permanent benefit.

B. M. R.: On first discharge from hospital, plus 30; at time of second admission, plus 70; twelve days later, plus 42; eleven months after operation, plus 6.

Operation: Ligation of left superior pole and removal of small portion of the gland, size of a walnut. Five days later left hemithyroidectomy.

Pathological Report: Hyperplastic goiter.

Post-operative Course: Convalescence uneventful. Improvement has continued and he is able to continue his work.

## III. Toxic Adenoma

Name: W. C. Sex: Male. Age: Fifty-seven.

Duration: Two years.

Symptoms: Increasing nervousness, loss of weight and strength, tachycardia, exophthalmos; distress in chest, and abdomen; slight enlargement of thyroid; extra systoles.

Clinical Course: Precordial distress was first noted two years before; later complained of pain in abdomen; these symptoms were much improved when he was hospitalized and given Lugol's solution. The other symptoms persisted when he returned to work. Under hospitalization and Lugol's solution, there was marked improvement.

B. M. R.: On admission, plus 81; after twelve days' treatment, plus 32; nine months after operation, plus 21.

Operation: Subtotal thyroidectomy.

Pathological Report: Diffuse adenoma (toxic).

Postoperative Condition: Made a good operative recovery; improvement has continued, and the patient is able to carry on his work.

## IV. Toxic Adenoma with Bryson's Sign

Name: W. J. H. Sex: Male. Age: Fifty-one.

Duration: Eighteen or nineteen years.

Symptoms: Extreme nervousness, irritability, emotional instability, weakness and marked loss of weight, attacks of pain and of extreme dyspnoea, extra systoles, Bryson's sign.

Clinical Course: First noted symptoms eighteen or nineteen years before; improved and remained fairly well until eight years prior to admission when he had been too ill to work for six months; then fairly well for six years. Had been given Lugol's solution for three weeks prior to first admission to the hospital, where he stayed for metabolic rate determination only, refusing treatment. When readmitted, general condition improved rapidly with rest and Lugol's permitting operation after eight days.

B. M. R.: On first admission, plus 42; on second admission, plus 32; three weeks after operation, plus 8.

Operation: Subtotal thyroidectomy; the calcified left lobe lay behind the sternum.

Pathological Report: Calcified adenomata.

Postoperative Course: Uneventful convalescence in hospital; immediate relief from the agonizing attacks of dyspnoea. Has continued to improve, and has resumed work.

## V. Toxic Adenoma with no Improvement on Lugol's Solution

Name: C. H. Sex: Female. Age: Fifty-five.

Duration: Enlargement of thyroid for twelve or thirteen years; toxic symptoms four years.

Symptoms: Enlargement of thyroid; marked nervousness; for some months past has lost weight and strength, had palpitation and dyspnoea confining her to bed during past four months.

Clinical Course: Condition became aggravated on treatment with Lugol's solution and rest; Lugol's was discontinued and bromides substituted with slight clinical improvement.

B. M. R.: On admission, plus 49; after Lugol's for ten days, plus 57; after ten days' rest, plus 42; nine and one-half months after operation, minus 8.

Operation: Hemithyroidectomy; left lobe apparently normal, not removed.

Pathological Report: Toxic adenoma.

Postoperative Course: Uneventful hospital recovery; has resumed her household duties.

The actual clinical value of the basal metabolic rate is sometimes brought into question. In my own experience, it has proven one of most valuable diagnostic aids, particularly in those cases in which the clinical symptoms are atypical, and is again of real worth in determining the time for operation, particularly in borderline cases. The first reading is, however, undependable since the apprehension of the patient is often reflected in an unusually high rate. In the toxic adenoma of long standing, it is the condition of the heart,

and of other parenchymatous organs rather than the basal metabolic rate, often relatively low even before treatment is instituted, that must determine the question of whether and when to operate. But in hyperplastic goiter, particularly in hyperplastic goiter of the fulminating type, we have no safer criterion of operability than repeated metabolic rate readings. When the metabolic rate has been reduced to a plus thirty-five or forty, and the crisis of the disease has been passed, subtotal thyroidectomy may safely be performed. If the metabolic rate cannot be brought within bounds and the condition of the patient is desperate, we may better, I repeat, allow him to do his own dying.

#### CONCLUSIONS

The thyrocardiac with hyperplastic goiter and the thyrocardiac with toxic adenoma may present the same cardiac picture—extra systoles, auricular fibrillation, myocardial degeneration, decompensation. The difference is not in symptomatology, but in history and histology.

In deciding for or against operation in toxic goiter, we must not lose sight of the fact that the scar on the neck is of less importance than the scar on the myocardium.

You can advise your patients to take a year's rest, but you cannot insure this rest if they must listen to the wolf at the door. It is unfortunate, but incontrovertible that depletion of financial as well as of vital forces plays a part in the prognosis.

At opposite poles of the prognostic scale, we find the relatively young individual with hyperplastic goiter to whom we can safely promise a fair measure of health, and the elderly individual with an adenoma, hypertension, decompensation, and a relatively low metabolic rate, to whom we can promise nothing.

In goiter, preoperative history tends to repeat itself, so that following operation we may encounter the same symptoms noted before operation—tachycardia, extreme restlessness, even delirium, temperature, sometimes extra systoles or auricular fibrillation—but they readily yield to treatment.

Lugol's solution is most effective in the acute, fulminating type of hyperplastic goiter, but in all types of toxic goiter it is still our best first bet. In hyperplastic goiter, it may even accomplish a miracle, but it is not wise to delay operation and so place your patient in a position where he must ask Providence for an encore.

Rest, Lugol's solution, surgery, these three, but the greatest of these is surgery.

#### IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines  
Commissioner, State Department of Health

#### MAY DAY, SUMMER ROUND-UP AND KINDRED ACTIVITIES AND THEIR RELATION TO THE MEDICAL PROFESSION

"May Day" is the name given originally by the American Child Health Association to some day in May—usually the first day—for the special consideration of the health of the child. The observance of the day has met with such hearty response that in the incredibly short space of five years, it has become a national day—a national child health day—observed by all types of groups of persons.

Each state has a May day chairman. The chairman for Iowa, appointed by the governor, is Dr. Mae Habenicht of Des Moines. Since May first falls on Sunday, the Iowa committee will, this year, stress the spiritual as well as the physical and mental aspects of child life.

Physicians will be interested in the following taken from the Weekly Health Message (No. 14) of the State Department of Health:

"The May day movement has the endorsement of the State Department of Health. Its general observance will serve to focus attention on the fine work that is now being done in many places in connection with the pre-school and the school child along different lines, but especially in the campaign now being conducted to enable every child in Iowa to become immune to diphtheria.

"The idea of having a physical examination by the family physician is even more important for the young child than for the adult. Defects or abnormal conditions often unrecognized by parents, will be detected by physicians. The correction of such may be of supreme significance to the physical and mental development of the child."

"Summer Round-Up" represents a movement started three years ago by the National Congress of Parents and Teachers. Briefly, the aim of this project is to make a list of all the children who are due to enter the first grade of school next September, to have these children examined by the family physician and dentist and if possible to have the physical defects which are discovered corrected before they enter school.

The aims of the movement are most commendable. It should be possible to conduct the program to the entire satisfaction of the medical profession and with great benefit to the rising generation.



Many physicians have complained—and rightly so, that certain organizations headed by lay persons are either trying to do work which only properly trained physicians are prepared to do or are expecting members of the medical profession to contribute their services for the good of the cause. In connection with some of these organizations, there is a lack of appreciation as to the qualifications that are necessary. Others have a desire to meet an obvious need in the quickest possible manner without due regard as to what it has cost a physician to become properly prepared and what it is costing him to carry on his daily work. In still other cases there is a lack of appreciation of the proper relation that should exist between the people of a community and their family physicians. To a certain extent the medical profession is responsible for this situation. As a profession, we have not sensed soon enough the eagerness with which people in general want and seek information as to how to maintain good health.

Whatever the reasons for the situation, it is not too late to remedy the condition. It is the hope of the State Department of Health, as representing the people, as being conservant with the problems and as being sympathetic with the viewpoint of the medical profession, that it may aid in bringing about a proper relationship between the family physician and the various organizations made up of lay persons that are intensely interested in promoting the welfare of the people.

The State Department of Health accordingly endorses the summer round-up campaign conducted under the auspices of the Parent-Teacher Associations.

The Iowa Congress of Parents and Teachers is being assisted by the Department of Health, the Iowa Tuberculosis Association, the State Association of Registered Nurses and the American Red Cross, all of which organizations are represented upon what is known as the State Hygiene Committee.

Locally the movement will involve the school authorities, the county medical and dental societies, the County Health Association and other organizations.

The following is quoted from a circular sent out by Mrs. B. C. Hopkins of Des Moines, president of the Iowa Congress of Parents and Teachers:

"The first step for any local parent-teacher association which is a member of the Iowa branch of the National Congress of Parents and Teachers is to ascertain the willingness of its

own members to give such personal service as may be needed.

"The next step is to consult the officers of the county medical and county dental societies or the members thereof and secure their sympathetic interest and approval. The cooperation of the superintendent of schools and the school board and of the county nurse or other public health nurses should be assured."

It is the desire of those in charge of this movement, that the examinations and corrections of defects should be made by the family physician. This is in accordance with instructions and is well indicated by the following form used for every child:

1. Name of child\_\_\_\_\_Address\_\_\_\_\_
2. Name of parent or guardian\_\_\_\_\_
3. Name of local physician whom parent would like to have examine child\_\_\_\_\_
4. Dentist (same as No. 3)\_\_\_\_\_
5. Is parent or guardian willing to—  
a. Take child to a physician and dentist in May to be examined?\_\_\_\_\_b. Endeavor to have the corrections made?\_\_\_\_\_c. Take child for another examination during the week or two weeks preceding the opening of school?\_\_\_\_\_

As per letter sent the officers of every medical and dental society in the state under the date of February 3, 1926—"it is not expected that physicians and dentists will make the necessary examinations without compensation". That a reasonable charge for both examinations and treatment will be made should be taken as a matter of course and no organization should make an appeal to a professional man's willingness to render a great service with the idea that such service, except under certain well recognized circumstances, shall be rendered without adequate compensation.

To properly arrange for the plans of organized effort to accomplish things in a rather wholesale manner, it is often advisable to respond in an organized manner. That is, it is well for the members of a society to consider what is the best method of doing the work. The State Department of Health is frequently asked as to methods of procedure to get certain things accomplished in a large way. Since it represents quite well the attitude of the department, physicians will probably be interested in the following extracts from a letter written by the commissioner in response to an inquiry regarding plans for the summer round-up:

"I feel that it is exceedingly important in the interests of the children that everyone should

receive a physical examination before going to school, and that if any serious defects are found they should be corrected as far as possible.

"I feel also that both the examinations and the corrections should be made by the family physician, as far as possible. It is very important in the interests of the growing child that the family physician who probably brought the child into the world, and has attended him in illness in his early years, should also make the physical examination contemplated by the summer round-up.

"It will of course be expected that the family physician will charge a reasonable fee for such work, the same as for any other work that he may be called upon to do. There are, in every community, some persons who are unable to pay for the necessary examinations and treatments. As far as treatment is concerned, it seems to me that any plan to be followed with reference to the treatment of those who are not able to pay, should meet with the approval of the local physicians, preferably as represented by the Medical Society.

"The reason for making this statement is that many physicians or medical societies already have arrangements made with the county supervisors or other public officials for the taking care of such cases. On the other hand, it is quite possible that in many places, public officials may not want to have the expense of examinations borne by the public. In order to do justice to such children, it does seem to me that it is entirely proper for public health organizations, such for instance, as the local branch of the State Tuberculosis Association, to use its funds to enable those children, whose parents are unable to pay, to have a proper physical examination. It is, of course, advisable to confer with the local physicians regarding the plan of operation in order to secure their approval and their hearty cooperation. I feel sure, also that in reference to such particular type of cases, physicians everywhere will give due consideration to the fact that the funds of the organization are always limited and that they will cooperate in having such funds aim to do the greatest good to the greatest number."

It is the sincere belief of the State Department of Health that a fine and effective cooperation will accomplish much for the good of the state and will, also aid to re-establish the proper relation between the people and the family physician—a relation which has been somewhat disturbed during the past decade.

## HEALTH MESSAGES

Issued by the department after last list submitted:

No. 8. January 25—"What Are We Eating and What We Should Eat."

No. 9. February 1—"Chief Causes of Death."

No. 10. February 8—"Ill Health Costs the Average Iowa Farm Family \$84.50."

No. 11. February 15—"Progress of Diphtheria Immunization Campaign in Iowa."

No. 12. February 22—"A Thermometer for Every Home, School and Office."

No. 13. March 1—"Has Jaundice Occurred Recently in Your Community?"

No. 14. March 8—"May Day Adds a New Note."

Copies were sent to officers of county medical societies.

## THE PROGRESS OF MEDICINE\*

W. L. ALLEN, M.D., F.A.C.S., Davenport

Plato wrote, "And I said of medicine, that this is an art which considers the constitution of the patient, and has principles of action and reasons in each case". He must have had a prophetic vision, for that was more than 2000 years ago and it is only within the last fifty years that medicine has had a definite knowledge of the cause of disease in most cases.

It has been rather generally supposed that the Egyptians, the Greeks, the Hindoos and the Chinese knew a lot about medicine some 3000 years ago, and much surprise has been expressed that our science has not made more rapid progress. To realize the difficulties, one must consider the obstacles which have been continually met and which have at times not only destroyed all progress but have discouraged all endeavor. For a thousand years constant wars with the accompanying licentiousness not only prevented scientific work but destroyed all works of art and culture and changed the progress and destiny of many nations. Another thousand years were occupied with sporadic development in some line of science but handicapped by ignorance and superstition. The last hundred years and up to the present time, has seen the sentimentalists up in arms in efforts to prevent the success of the "microbe hunters" in the greatest achievement ever given mankind, the prevention of contagious disease.

Perhaps the earliest record of medicine is a

\*Presented before Kiwanis Club, Davenport, Iowa, January 27, 1927.



treatise on anatomy attributed to Athothis, the son of Menes who reigned in Egypt in 5241 B. C.

The Papyrus Ebers, written 1552 B. C., that is at least a century before the exodus of the Israelites, is a compilation of receipts and directions for the treatment of various diseases, many of the formulæ it refers to as being then ancient.

The first allusions to surgical subjects in Greek literature are found in the poems of Homer, which may be accepted as dating from about 1000 B. C.

From this time until the year 480 B. C. Greece was at the height of her career, the center and the leader in all the arts, literature and science of that day. Then came the invasion by Xerxes and his 1,500,000 of Persians and allies and the tragic battle of Thermopylae, and the later naval defeat of the Persians.

Forty years later the real birth of medicine began in the birth of Hippocrates. This period was one of extreme licentiousness. The city of Nankratis was one of the chief ports in Egypt, and the Greeks were given the sole privilege of commerce there. This city was located on one of the canals of the delta of the Nile and a few centuries later became buried by the Nile deposits. The city of Nankratis owed its wealth and fame to the beauty of its courtesans, whose reputation spread throughout Europe, and was much celebrated in Greece. Rhadopis led the life of a courtesan in Egypt with such success that she (if the stories of Egyptians are to be believed) built a pyramid with her savings. In Chaldea, religion first connived at and then commanded prostitution. Every Babylonian female was obliged by law to prostitute herself once in her life in the temple of the Chaldean Venus, whose name was Mylitta. Herodotus claims to have seen the park and grounds in which this singular sacrifice was made. They were constantly filled with women with strings bound round their hair. Once inside the place no woman could leave it until she had paid her debt and deposited on the altar of the goddess the fee received from her lover. Some, who were plain, remained there as long as three years, but the young, the beautiful, the high-born, seldom needed to remain over a few minutes. Among the Greeks, this class of women seemed to be less degraded, and were often held in high esteem personally by the great poets and orators. The Hetairæ were by far the most important class of women in Greece. They filled so large a place in society that the virtuous females were entirely thrown in the shade and it must have been quite possible for a chaste Athenian girl endowed with ambition, to look up to

them and covet their splendid infamy. An Athenian matron was expected to live at home; she was not allowed to be present at the games or the theatre. A Milesian named Thargelia accompanied Xerxes on his invasion of Greece. Some idea may be formed of the position in society occupied by courtesans from the fact that Xerxes employed this woman as negotiator with the courts of Thessaly. Fired by her success, another Milesian girl named Aspasia established herself at Athens. She set up a house and peopled it with the most lovely girls of the Ionic cities. But wherein she differed from rivals and predecessors was the prominence she gave to intellect in her establishment. She lectured publicly among her girls and their visitors, on rhetoric and philosophy, and with such marked ability that she counted among her patrons and lovers the first men of Greece, including Socrates, Alcibiades and Pericles.

One would think from this that the Greeks at that time knew a good deal of medicine, and it is quite generally believed that the Egyptians, Hindoos and Chinese for many centuries before the Christian era knew both of surgery and medicine. It is true that the Greeks did practice some very rational methods in some surgical cases; for example, they cut for stone in the bladder, and they trepanned a fractured skull successfully, and they were quite expert and rational in reducing fractures and dislocations, and in treating the same. As to "general medicine", they knew little or nothing. As to preventive medicine they did adopt certain customs and measures which were beneficial in themselves without in the least knowing the reason therefor.

The Egyptians were quite generally supposed to be skilled in medicine. They were very abstemious, and limited their children until manhood, to a maximum diet of 20 drams a day; they were expected once a month to use emetics, purgatives and clysters. Those who did become seriously ill were exposed in the streets in order that they might receive advice from the passers-by. They have been greatly praised for their skill in embalming, and yet but little of anatomy was learned by them, as the operator or man who made the abdominal opening was obliged to do it quickly, and hurry away for fear of being put to death by the friends of the deceased.

The Hindoos had no knowledge of anatomy, attributed all diseases of the skin to worms, and all other diseases to either wind vertigo or change of humors. One interesting theory which they held was that there were 100,000 different parts of the body with 17,000 vessels, each of which

had seven canals, and in which there circulated ten species of winds. They argued that the best preventive of disease was not to breathe quickly, as it caused much disorder of the circulation in these wind canals. They were great believers in baths.

The Chinese were supposed to know much about the science of medicine and its mysteries, and their reputation was spread by some of the eastern missionaries, and was largely conceived by witnessing their apparent wisdom in regarding the pulse. They played upon it with four fingers and claimed that by their wise exploration they could locate disease; for example, to ascertain the diseases of the heart, they would feel the left radial artery, for the liver they would examine the left radial a little higher up, for the stomach the right radial, etc.

Nor can we consider the early Greeks to have been much farther advanced, except in surgery. They dressed and bandaged wounds well, they treated fractures still better, and as I have already said they trepanned the skull, and had specialists for operating for stone in the bladder. Empedocles, who lived in the year 443 B. C., was one of the earliest philosophers who has left a name in our anatomy; he first called the membrane, which encloses the fœtus, the amnios.

Hippocrates (460-370 B. C.) may well be called the father of medicine. His advent marks the first epoch in our progress. When we consider how little was known even of anatomy, and that the veins and arteries were supposed to contain wind derived from the head—that nerves and ligaments were considered one and the same—that dissections were seldom made, except upon birds and animals, and that even the knowledge of osteology was very crude; and to this the absence of all ideas which could be considered reasonably correct concerning disease, and it is indeed greatly to be wondered that such a wise old philosopher could have developed in that fog of ignorance. He believed that there were four fluids in the body—the blood, phlegm, yellow and black bile. He was most skillful with dislocations and simple fractures, but would not allow a compound fracture to be disturbed, for his experience had taught him that if the protruding bone were reduced mortification and death would result, whereas he had seen nature make a cure, although with a horrible deformity, where the part was left undisturbed. Without antiseptics or drainage, perhaps he was wise to have done so. He did not amputate, and he taught that nature would often save a crushed part, or at least destroy it by gangrene, and save the life of the

patient. His great work was in his teachings and his efforts to lead the profession into methods of observation and of treatment which might result in improved measures.

Aristotle a few years later made great strides in anatomy, and was the first to place in the heart the origin of all the vessels.

Herophilus and Erasistratus were equally celebrated, and added much to the reputation of the profession in that age.

The pathology originated by Galen, in 180 A. D., might well be called the second epoch in medicine. He retained the four fluids, and clung to the teachings of Hippocrates, but claimed to have discovered the object which the great teacher had hoped for, namely, the cause of disease. This he stated to be a species of putridity, which marked all changes in the four fluids, which he styled humors. This doctrine so far from all reason as we see it today, was held as the only medical doctrine of pathology for nearly 1600 years, and was followed by all practitioners of medicine. In his day amputations were made and compresses of water or oil, or the actual cautery were used to allay the hemorrhage, and even the veins were tied, but all appearance of blood in the arteries was supposed to be due to accidental causes.

Antyllus, in the next century, described the operation of ligating the vessels for aneurism, and still never thought to tie the arteries to prevent death after amputation.

Thus the darkness, which, during the middle ages, hung over the world, delayed the progress of medicine. In the year A. D. 1315, Mondine de Lussi, professor of anatomy in Bologna, dissected a human subject before his pupils, this being the first known dissection for seventeen hundred years. This can well be called an epoch in our progress. During the next two centuries advances were made in chemistry, and new drugs were brought into notice. However, the pathology of Galen was so well established and the teachings that treatment should be carried along on certain lines therein laid down, prevented much improvement until the sixteenth century, when the discussion over bleeding for disease became so general that it excited the anatomists to great activity, and resulted in many changes in physiology and anatomy. Argentier described the blood supply of the skin and nails, and claimed in direct opposition to the Galen teaching, that these and other parts of the body received their nourishment from the blood. At last, after fifteen hundred years some truth began to dawn upon this ignorant and misguided profession. Paracelsus, about the year 1500, started a new



line of practice, by using drugs to extreme degrees. He opposed all the theories of Galen, and declared that the human body is composed of salt, sulphur and mercury.

On account of the numerous wars in which various nations were engaged during the sixteenth and seventeenth centuries, rapid progress was made in the practice of surgery. Surgeons were afforded ample experience, but they were not accounted worthy to hold chairs in the universities until the eighteenth century. The discovery of the circulation of the blood was demonstrated by Harvey in the year 1619.

The use of the microscope with the light thrown upon the anatomy of the kidneys was demonstrated by Malpighi of Bologna soon after. This, together with the demonstration of the corpuscles of the blood and other important discoveries in physiology and microscopic anatomy, were achievements more important than any others which had hitherto been recorded. This might truly have been called a scientific era, and yet the practice of medicine was degraded by strife and false doctrines. Losing the old time pathology of Galen, the profession was torn by the boastful claims of Paracelsus on one hand, and a school of fanatics (similar to those we have had recently thrust upon us) on the other. This school was called the Rosicrucian, a faith cure, and it died out in a few years. The theories of medicine were not brought into any degree of uniformity, until the last of the seventeenth century, when under the influence of Sydenham the loose ends were gathered together and a sensible system of practice adopted, which as far as possible was worthy of the notable discoveries that had been made in anatomy and physiology.

In 1798 Jenner gave the world his discovery of vaccination. This event was so important, and its principles so closely related to the recent developments in bacteriology and the antitoxins that it seems remarkable that nearly one hundred years should have elapsed between them.

In 1809 McDowell made in Kentucky the first operation for the removal of an ovarian tumor. This is not so very long ago, and at that time surgeons in Germany, France, England and in this country were operating extensively upon all forms of external growths. In France they had made great progress in genitourinary operations, and had made bold advances in plastic surgery. Yet many years passed before the operation upon abdominal tumors became a warranted procedure.

The discovery of anesthesia by Long, in 1842, or Morton in 1846, makes an epoch of the greatest importance in surgical progress. Those of

us who have never known what it was to do without chloroform or ether cannot realize the extent and value of this discovery. Men were bold, indeed, to attempt an ovariectomy without anesthetics, and without antiseptic methods. The adoption of anesthetics, following so closely upon the McDowell operation, which was finally admitted as justifiable, gave a great impetus to surgery, and especially to that part hitherto avoided, i. e., the abdomen. In a few years men like Spencer Wells and Lawson Tait had numbered their abdominal sections above the thousand mark, and that without aseptic methods.

General medicine again took on a new growth. The great universities in Germany, France and Austria, added new views on pathology, and in Vienna, influenced by the positive discoveries in diseases of the skin, and by the teaching of the great pathologists, Virchow, Rokitansky, and Billroth, a reaction in the use of drugs occurred, with the result that many of the German schools and especially that of Vienna adopted, to a great extent, what became known as expectant treatment. This reaction was, however, only the result of scientific reasoning. The treatment of skin diseases and its pathology had been so exact that men were attempting, whenever possible, to learn and see the cause of disease, and then adopt some specific treatment. Thus far, in general medicine, we had but one specific in use, namely, quinine for malaria fever. This was used empirically it is true, but with a positive belief that it was the true specific for that disease, and so it proved. Consequently, the positive believer in specifics waited in all other infectious diseases, and treated them expectantly and with good results.

At last, less than fifty years ago the "Microbe Hunters" changed for all time the science of medicine. In 1632 a Hollander named Leeuwenhoek was born and although a simple merchant he had a hobby, and after forty years he began to grind lenses which made him famous, and gave to humanity the greatest instrument ever produced, the microscope. One little one-horse surgeon, Galvinni, in 1560 gave to industry one of its greatest discoveries; another, Dr. Priestley, gave all science a great boon in discovering oxygen. And now a little shop-keeper gave medicine its power to see, not only the causes of disease, but the pathological results in tissue from all parts of the body.

(Year 1880) The plodders are in the meantime at work, and Pasteur, Roux, Behring, Koch and others in France and Germany, after having attacked several diseases under new methods of

germ-theories, have finally given to the public their views upon infectious diseases, and begun the warfare upon our hardest enemy, tuberculosis. This was unfortunate as it has therefore apparently failed of result, and has led to much scoffing amongst the weakminded and brainless ones. Lister, however, startled the world by putting into practice his methods of antiseptics quite in line with the views of the great bacteriologists. Lister, was a fine man, modest to a degree, but firm in his belief, and he put into practice with such success, his surgical antiseptic measures, that they were almost immediately adopted by practical surgeons all over the world, and that, too, before the theories of bacterial infections were at all understood by the world at large. This marked an epoch in surgery which although modified by later aseptic methods, made surgery complete in all its details, scientific in its application and almost certain of whatever results the wise operator would prognosticate. It gave the surgeon such fearlessness in operating, that he won added laurels in hitherto untried fields; the intestines, the kidneys and ureter, the gall-bladder and stomach are now subjected to a direct exploration and as a warranted procedure.

Medicine on the other hand, found no compensation for the failure with tuberculosis, until the plodders announced their ability to conquer diphtheria by the use of the anti-toxin serum. The work of the bacteriologists with their culture methods for developing and separating colonies and varieties of bacilli and in the inoculation of different animals with the toxin so formed and the resulting anti-toxin thus obtained, is the crowning glory of the progress of medicine; more valuable than the discovery of anesthetics, and, in my opinion more important to humanity than any scientific discovery. It makes an epoch in our history marked by the saving of several hundred thousand lives yearly.

In one step, medicine, waiting expectantly for hundreds of years, passed ahead of all other sciences in its ability to save life. How few of us realize that the discovery of Jenner over a hundred years ago, came so very near solving the mystery of the antitoxins. That the work of Pasteur made possible that of Lister. And now, for the first time in the world's history, has medicine been able to treat an infectious disease accurately, mathematically, scientifically and successfully.

However, the good work continues. Smith spent several years running down the cause of Texas fever and traced it to the tick. Ross and Grassi spent five years chasing the mosquito and

finally found the right one which carried malarial fever from one victim to another. Walter Reed, James Carroll and Jesse Lazear gave an example of heroism in duty seldom equaled. Yes, it is glorious to march out into battle and be killed for our country, but it is a rare type of heroism to sleep in a closed room with all the bedding and clothes of patients who died of yellow fever to prove that it is not contagious, and then to allow oneself to be bitten by mosquitoes who have been fed on yellow fever victims' blood to prove that this mosquito will give you yellow fever. And so Lazear died, and Carroll nearly died but recovered for a few years. It was this work and the work of Ross and Grassi that gave the United States the Panama Canal.

And now David Bruce has died after spending twenty years exploring Africa with his microscope to see if the Tsetse fly causes sleeping sickness.

As a result of all these heroic experiences we now have antitoxins for nearly all the contagious diseases. In spite of the fact that many societies have attempted to prevent our use of antityphoid vaccine, which saved hundreds of thousands of our soldiers in the great war, and are still attempting to prevent our use of guinea pigs, which we must use to perfect the toxins necessary to save untold millions of people in the future.

Let me give you a glimpse of Davenport's most tragic year, 1886. I had spent two years in Vienna and Paris and London, and had heard Lister tell of antiseptic surgery, had heard Pasteur tell of the possibilities of bacteriology, had heard men scoff at Koch, and yet none of these vital messages made any impression upon me, they were only possibilities of the far off future; then like a flash all changed. Little children in Davenport were strangling for air, choking to death from some dreadful deposit which killed in two, three, or four days, while we stood by helpless, hopeless, absolutely with no power to aid; no means to alleviate the dreadful, choking menace which came nearer, and nearer, and which never left until its victim had succumbed. So I prayed that I might never see another case of diphtheria; rather would I give up my profession, so helpless, so futile seemed all our work in the face of this calamity. Many of our dear friends lost all their children within three days' time. Three hundred sixty-five little children died then in a few months, and now all that has gone, never to return, never to be feared.

Two years ago the board of health of Sioux City began a campaign to eradicate diphtheria,



They immunized over 19,000 children with toxin antitoxin and reduced the mortality from diphtheria at first to two deaths in a hundred thousand, and I understand, that recently, there has been no mortality from diphtheria in that city.

#### REFERENCES

- Billings—History of Surgery.  
Sanger—History of Prostitution.  
DeKruif—The Microbe Hunters.

### DISCHARGES FROM THE ANUS

CHARLES J. DRUECK, M.D., F.A.C.S., Chicago  
Professor of Colon and Rectal Diseases Post-Graduate  
Hospital and Medical School

The discharge from the anus of mucus, blood or pus is significant of so many conditions, some trivial and others malignant, that its presence demands a careful search for its origin.

#### MUCUS

Mucus is of course always found on the lining wall of the bowel, but when found in abnormal quantity as a result of over activity of the mucus secreting glands (goblet cells), due to irritation or inflammation, it may amount to whole evacuations of clear mucus without fecal particles, or it may appear as strings, tubes or casts. Such discharge is evidence of proctitis, colitis, polypi or papilloma of the rectum and sometimes but to a lesser degree of internal hemorrhoids, thread worms, or impaction of the rectum or sigmoid, or even fecal stasis or a foreign body. The frequent use of hot enemas will often cause a mucous discharge.

Whatever the composition of the discharge it is most abundant in the morning, producing a spurious diarrhea as a result of the accumulation which occurs over night while the patient is at rest. The patient may have twenty or thirty evacuations in the morning.

#### BLOOD

Bleeding from the anus occurs in nearly all rectal diseases and although the immediate effect of a given hemorrhage is rarely alarming of itself, the nervous excitement is often distressing and the anemia resulting from repeated losses of blood may be serious.

It must always be remembered that the presence of minor lesions such as fissures, rectal ulcers or internal hemorrhoids must not prevent a thorough examination further up the bowel. A malignant neoplasm of the sigmoid is often associated with rectal hemorrhoids or proctitis.

Blood escaping from the anus but originating from a lesion above the descending colon is usu-

ally black or occult. A first and only appearance of hemorrhage with the stools or independent of defecation has very little significance as it may be due to some slight injury. Small losses of blood from the bowel, often occult, if frequently repeated over a long period of time may exsanguinate the subject and therefore a thorough and painstaking examination must be made. Black, clotted blood, coffee ground or melena type, is due to lesions above the colon, but the currant jelly like hemorrhage accompanying intussusception is important. Hemorrhage sometimes follows osteopathic manipulations of the abdomen.

Rectal bleeding occurs at any time of life, but is less frequent in the rectal diseases of childhood.

The amount of blood which the patient claims is lost is not always to be taken at his own estimate for only few individuals are sufficiently careful observers to be able to state accurately. As a rule more is thought to have been lost than really is. It is often the reddening in the lavatory bowl by a slight bleeding which gives the idea that there has been a profuse hemorrhage. The appearance of the patient is often an index of the severity of the hemorrhage by the degree of anemia produced.

Inquiry must be made as to the amount, color of the discharge, and time at which it occurs, also whether it is mixed with the feces or only streaks the surface of the mass.

Bleeding is so commonly associated with hemorrhoids that one is inclined to take too much for granted and neglect to make a thorough investigation.

Bright red blood usually comes from somewhere fairly low down in the rectum, or from the anal canal. When the bloody discharge is dark in color, contains clots, or is tarry in appearance with a characteristically foul odor, or is incorporated with the digestive residue, it generally has come from a lesion higher up in the bowel.

Nearly all rectal disturbances cause some hemorrhage, and the fact that an external abnormality such as fissure exists, does not preclude disease higher up within the intestine, even cancer or ulcer being a possible contributing factor.

When children bleed at the anus, parents seem to bring them quicker to their physician than they do for any other rectal symptom, except that of protrusion. In children bleeding is rarely due to hemorrhoids. It is far more apt to come from a solitary, polypoid, pedunculated adenoma, which bleeds easily and is usually attached to the posterior wall of the lower end of the rectum, just above the internal anal sphincter.

A few drops of blood on the toilet paper after defecation, or streaking the bowel movement indicates ulceration within the anus or rectum, most likely a fissure, rectal ulcer or a fistula.

The hemorrhage of anal ulcer (fissure) is small in amount, but as a rule, occurs with every defecation. The bleeding occasioned by the traumatism of the ulcerated internal opening of a fistula is small in amount and irregular in occurrence. In both of these conditions the bleeding may be only sufficient to stain the toilet paper. The contraction of the sphincter muscle closes the blood-vessels and prevents much loss of blood.

In small children, especially in those badly constipated, when a fissure exists, a drop or two of blood may be squeezed out at the time of defecation. When there are multiple fissures, early evidence of hereditary lues, the bleeding is freer, not only during but also between the times of bowel movements.

Fine linear cracks in the tissues immediately surrounding the anal orifice and simple fissure do not bleed as a rule, unless scraped by hardened feces at defecation. Then they may bleed sufficiently to well stain the detergent toilet paper, and so arouse the patient's fears.

Stricture or obstruction of the rectum usually shows a small loss of blood with the evacuations or streaking of the stools, although there is sometimes a little loss of free blood after the evacuation. This occurs regardless of the cause of the obstruction, whether catarrhal disease, tumors of the rectum, or mechanical strictures; but when ulcerating, necrosing masses of tissue are torn off by the passing mass during defecation, as in cancer, benign tumor or tuberculosis, a very serious hemorrhage may occur.

During the course of typhoid fever the passage of mucus streaked with blood is sometimes a warning signal of impending hemorrhage and perforation.

Blood streaking the feces and accompanying diarrhea or a frequent desire to defecate (rectal tenesmus) indicates a severe proctitis, a polypus or a prolapse.

Persistent bleeding after each bowel movement or that occurring independent of the act of defecation indicates that the source is within the rectum and may be:

1. Erosion or ulceration on the rectal wall, such as an ulcerated hemorrhoid, rectal ulcer (tuberculous, syphilitic, dysenteric, amebic cancerous or traumatic).

2. Laceration of the rectal mucosa from injury by a foreign body, or a large hard fecal mass.

There is rarely any bleeding from external thrombotic hemorrhoids, but I have seen several cases where the stretched skin had broken, the clot had been only partially extruded, keeping the vein open, and thus allowing a small but steady stream to trickle out on the clothing.

Bleeding from internal hemorrhoids at times may be constant and even very profuse, especially when they are chronically prolapsed. The same may be said of varicosities situated high up in the rectum, when they rupture. Both quite frequently cause a severe anemia, the reason for which often remains unsuspected until a proctoscopic examination discloses the trouble.

*Bleeding Independently of the Act of Straining or Defecation*—In both adults and children quite severe hemorrhages may take place from multiple polypi of the bowel wall, and from the hemorrhagic and the amebic forms of colitis.

Considerable oozing of blood occurs when a chronically prolapsed rectum has been long traumatized by friction against the clothing.

Blood, dark in color and mixed with feces suggests an ulcer or cancer high up in the bowel.

Certain fevers like malaria, yellow fever and typhoid fever, are often complicated with rectal hemorrhage, and marked changes in the blood like that which occurs in anemia, purpura, scorbutus.

Blood with constipation, especially if the symptoms are relieved after the hemorrhage, indicates acute intussusception.

Other causes for rectal bleeding may be injuries to the anal or rectal mucosa, the result of the passage of excessively hard fecal masses, or of sharp, irregularly shaped foreign bodies, improperly directed or roughly inserted syringe tips, rectal thermometers and examining instruments, following accidental injury or after an operation.

The important fact is, that blood appearing on the stool or voided without relation to the fecal evacuation is pathological and is an imperative demand for a thorough rectal examination. The amount or character of the blood lost are no indications of the gravity of the situation; and, although a sharp severe hemorrhage may demand immediate treatment, the lesser show of blood may be of more serious import and demand careful investigation.

#### ENTERORRHAGIA IN HERNIA

This complication arising in cases of hernia has not received the attention it deserves, although it occurs almost exclusively in strangulated hernia and follows reduction either by taxis or kelotomy. Nevertheless, intestinal hemor-



rhage has been known to occur after a difficult reduction of large non-adherent hernia, as well as after a radical operation in cases where the omentum was resected. Dieulafoy, Eiselsberg, Castagnol and others have shown that hematemesis may occur in hernia from torsion or resection of the omentum or from a hernial toxi-infection. They are of considerable gravity and frequently fatal.

The pathogenesis of hernial enterorrhagia is very complex, but has been enlightened by clinical, pathological and experimental data. There is invariably an extensive congestion of the walls of the intestinal loops involved in the hernial sac with more or less sanguineous exudation in both the cavity of the sac and lumen of the gut, and for these reasons it is somewhat surprising that hernial hemorrhages are not more frequently encountered. On the other hand, the circulation is interrupted by constriction of the vessels of the mesentery, comprised in the strangulation, especially the venous flow, so that the arterial blood can arrive in large amounts until it breaks through its natural barriers, exfoliating the mucosa by infarcts and thus cause considerable or even fatal hemorrhage. Venous thrombosis brings about the same result.

The afflux of arterial blood, checked by the constriction of the mesenteric branches, can produce the same disorders and consequences at the moment when, the obstacle having been removed, the blood rushes under high pressure into the empty arterial territory which is more or less weakened by ischemia and microbic invasions. The ulcerations on the mucosa of the strangulated loop, which are prone to develop in the sulci formed by the strangulation, may give rise to quite considerable enterorrhagia and intestinal perforation with intraperitoneal collections of blood and peritoneal accidents. The ulcers of toxi-infectious origin—the intestinal loop being a closed cavity—have probably the right to deserve a special place in the etiology of hernial enterorrhagia.

There is a group of late occurring intestinal hemorrhages, arising during the early days following surgical treatment of hernia, whose etiology is not clear. In cases of tight strangulation they seem to be due to deep sulci produced by the stricture of the gut and on the point of becoming gangrenous, usually in arteriosclerotic subjects. It seems probable that they result from the elimination of the sloughing tissues when the loss of blood is small and is later accompanied by intestinal stenosis, but it is still more likely that they are due to a thrombosis of

the vessels resulting in necrosis of the mucosa of the corresponding territories, or perhaps the arrest of the circulation and afflux of blood cause a sanguineous exudation into the lumen of the gut and the peritoneal fold.

The prognosis of hernial enterorrhagia is serious when the loss of blood is considerable and recurs frequently; on the other hand, the prognosis is not serious when the blood is passed in small amounts and at infrequent intervals. On the whole, however, the mortality is quite high.

#### PUS

Anal bleeding associated with the discharge of pus and mucus indicates an ulcerative lesion, while destruction may be limited to the superficial tissues as in proctitis, colitis or dysentery, or to deeper involvement as in polyposis, prolapse or cancer. Mechanical obstruction from fibrous stricture, pelvic adhesions or the pressure upon the bowel of extra rectal tumors may block the lumen of the bowel until the passage of the fecal mass tears the mucosa.

Pus when voided unmixed with feces usually means the rupture of an abscess into the bowel. It is generally mixed with blood and mucus. When the pus is of lesser amount and more intimately mixed with mucus or pus it is almost unmistakably from an ulcer which may be benign and simple, or may be stricture, or cancer of the rectum.

In that form of colitis where there is infection and severe ulceration of the bowel mucosa, there is sometimes so much suppuration that it is really remarkable what quantities are discharged.

The tenesmus attending the continuous discharges is quite frequently spoken of by the patient as diarrhea, on account of the frequent stools. Without a rectal examination such cases would be erroneously treated for diarrhea, to the great detriment of the patient and chagrin of the physician.

---

#### THE PAINFUL HEEL

---

Dr. Theodore Toepil of Atlanta, Georgia, presents a short paper in the Journal of the Medical Association of Georgia, December, 1926, on "The Painful Heel". While the condition is not uncommon it is not generally specifically stated. In a certain number of cases the symptoms seem to be due to an exostosis developing on the os calcis, readily determined by x-ray. The greater number of cases are probably inflamed bursa best treated by relieving pressure by rest or by the use of rubber rings. If an exostosis is found, relief may be obtained by operative removal.

# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, Sr., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

Publication Committee

DAVID S. FAIRCHILD, Sr., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII                      May, 1927                      No. 5

THE COUNTRY DOCTOR

Much is said and written of the country practitioner of medicine as if he belonged to a special type of men. In recent years the doctor is often measured by the size of the town in which he lives and carries on his professional work. The town is generally measured by its sphere of influence, and it is usually believed the element of population is the factor which determines its sphere of influence. There is always an ambition on the part of towns to increase their population without much regard to the character of the people invited. Chambers of Commerce are in active competition to capture industries and factories for the purpose of bringing in new people and thus increasing population. This is, of course, important from a business point of view, but not always so when it comes to the practice of medicine. A large floating and uncertain population is not attractive to the physician, for reasons we may not mention, unless it be through a contract arrangement in which a few profit.

In earlier days when the ideal country doctor, of whom we like to talk and write, was young, he sought the attractive smaller town which gained its influence from the character of its people. We recall the names of Dr. Dixi Crosly and his son Dr. Benning (Dr. Ben) Crosly of Hanover, New Hampshire, who were known to every influential family in New England, and were prob-

ably the most influential surgeons in the New England states. Both these men were content to live and practice all their lives in a town of less than 1,500 people, but it was a most delightful place, the seat of Dartmouth College. They were country doctors of the highest type. They enjoyed their environment and the people among whom they lived and practiced. We could enumerate other instances, in what is called the "older days", but within the memory of the writer.

We need not go to New England for such types, we may find them nearer home, perhaps not so distinguished, but as useful in their communities. We have two such in mind, men who devoted their lives to the welfare of their people and gained thereby much happiness. They were respected by their associates, welcomed at every gathering of medical men; whose opinions carried weight everywhere and always. No one asked how large a town Dr. Eschbach lived in, no one was interested in how many people lived in Audubon where Dr. Brooks practiced. For nearly forty years Dr. Eschbach devoted his life to the care of an appreciative community which felt the loss of a wise medical advisor, one who was trusted in times of stress. It did not matter how many people there were in Albia but it did matter if Dr. Eschbach was accessible.

Dr. Alfred Leroy Brooks, another country doctor we have in mind, was born at Vinton, June 6, 1858 and graduated from Rush Medical College in 1883. He had received the advantages of a good preliminary education. Before reaching a definite decision as to a permanent location he practiced three years in Gray, giving him an opportunity to measure the attractions of many cities. What led him to select Audubon we are unable to say, but we presume it was because there were elements in this attractive village that drew him to it as a permanent home. For forty-four years Dr. Brooks lived with the people he had selected as friends and neighbors. There was something in the spirit of the people that was congenial to Dr. Brooks, which brought a sympathetic relationship. There was something in the case of both Dr. Eschbach and Dr. Brooks, more than personal ambition that led them to make the selection they did in establishing a permanent home. In their day there was a wide range of choice of location and the selection and the success of their lives is a helpful measure of these men. It is not, therefore, the town or the city to be considered but the men themselves, who sought comfort and happiness in the performance of duty in a congenial environment.



## THE HOSPITAL CLINICAL CONGRESS OF NORTH AMERICA

### News Bulletin No. 1

With Dr. M. T. MacEachern, director of the American College of Surgeons, I have been making a swing around the entire North American continent conducting sectional hospital meetings.

The outstanding feature of the meetings is the new way in which Dr. MacEachern is carrying on the hospital conferences.

They have been conducted after the manner of clinics—the equipment, the organization and the procedure being set before the audiences by people selected from hospitals where the sectional meetings are being held.

The direct result was an increased interest in the equipment, the organization and the local procedure. Most interesting questions developed in the round table discussions.

It is safe to say that much interest has been aroused among hospital people for hospital equipment, and the uses and the procedure connected with the equipment.

Our trips so far have covered the East, Southeast, South and Southwest, and in April and May we hope to complete the circuit of the entire United States and Canada.

The Hospital Clinical Congress of North America is a national effort to put the whole hospital layout in each of its departments before the hospital world. Dr. MacEachern is director general of clinics for the Congress.

The success of the sectional clinical gatherings presages the interest which will be evidenced in the Congress being held in Milwaukee. In the sectional gatherings I brought up the plan for the Congress and it has received an enthusiastic welcome with promises of support from all hospital people.

I know you will be interested in this as it affects your plans for participating in the Congressional exhibits.

Yours sincerely,

Rev. C. B. Moulinier, S.J.,

President, Catholic Hospital  
Ass'n. of United States and  
Canada.

Davenport, Iowa, March 30, 1927.

D. S. Fairchild, Editor,

Clinton, Iowa.

Dear Doctor:

I read with interest the article in March issue on "Periodic Health Examinations" by Dr. Elliott; have also read the pamphlet sent out by the A. M. A. on the subject, but it seems to me that Dr. Elliott could have helped the general practitioner out more by continuing his paper and explaining what he did advise our Frater to do, or have done, after completing his examination. I believe most any of us

would have discovered the goitre, cervical and axillary glands, low blood-pressure, underweight, etc., etc.

It seems to me that an article giving findings in full and explicit recommendations by one of our teachers of internal medicine, would be of much benefit to the general practitioners.

Is it too late to have such a paper given at the State Meeting and published early thereafter?

Yours fraternally,

C. S. Stoakes, M.D.

## THE SUMMER ROUND-UP

Encouraged by good results in many communities throughout the country the National Congress of Parents and Teachers is promoting for the third time this spring and summer the "Summer Round-Up".

Briefly the aim of this project is to make a list of all the children who are due to enter the first grade of school next September, to have these children examined by the family physician and dentist and if possible to have the physical defects which are discovered corrected before they enter school.

The Iowa Congress of Parents and Teachers is being assisted by the State Department of Health, the Iowa Tuberculosis Association, the State Association of Registered Nurses and the American Red Cross, all of which organizations are represented upon what is known as the State Hygiene Committee.

Locally the movement will involve the school authorities, the county medical and dental societies, the county health association and other organizations.

### Local Procedure

The first step for any local parent teacher association which is a member of the Iowa branch of the National Congress of parents and teachers is to ascertain the willingness of its own members to give such personal service as may be needed.

The next step is to consult the officers of the county medical and county dental societies or the members thereof and secure their sympathetic interest and approval. The cooperation of the superintendent of schools and the school board and of the county nurse or other public health nurse should be assured.

The cooperation of the county or local public health association or Christmas seal committee should be secured. It may be found helpful to enlist also the interest of other community groups which are concerned in any way with public health matters.

When assured of such cooperation the local parent teacher association should register with the state president of the Iowa Congress of Parents and Teachers, Mrs. B. C. Hopkins, 415 Shops building, Des Moines, stating its intention to enter the Round-Up.

The state president will then file this registration with the national campaign office, 5517 Germantown avenue, Philadelphia, Pennsylvania.

Upon receipt of the registration the national campaign office will send to the local association samples of various forms to be used. The local association can then fill out the first report card and order the number of examination blanks needed.

After filing its registration the local association before waiting to hear from the national campaign office should begin at once its census of children in its territory who should enter the first grade in September. This census may be made on cards or sheets or in a book. The local association should supply its own records for such census. It should cover the following information with regard to each child:

1. Name of child..... Address.....
2. Name of Parent or Guardian.....
3. Name of local physician whom parent would like to have examine child.....
4. Dentist (same as No. 3).....
5. Is parent or guardian willing to
  - a. Take the child to a physician and dentist in May to be examined?.....
  - b. Endeavor to have the corrections made?.....
  - c. Take child for another examination during the week or two weeks preceding the opening of school?.....

Special arrangements should be made with physicians and dentists in regard to the examination of children whose parents are not able to pay. This should be planned in advance.

The committee in charge should arrange a time schedule with the physicians and dentists and notify the parents.

Further instructions and materials will be sent by the National Campaign Headquarters following receipt of registration.

Since May 1 is National Child Health Day it would be appropriate for ministers at this time to announce the names of the schools which are participating in the Summer Round-Up.

### MAY DAY ADDS A NEW NOTE

Once more comes May Day. This year marks the fifth revival of the day as a festival of American childhood, wholesome and whole. The day has rapidly gathered impetus and tradition and taken its place in our national life.

Beyond those celebrations deeply embedded in our consciousness, such as Christmas and Easter, none holds a greater significance, for May Day in its essence is a dramatization of that hope with which the world has turned to the child as the one permanent and abiding thing to steady it against a background of shifting standards, of speed and jazz, of political and social instability.

On May Day that hope is celebrated and in schools, communities, little villages and great cities

throughout the country all that is being done to clear the pathway of childhood is brought into the foreground.

The idea of May Day for child health has grown rapidly in five years. Launched by the American Child Health Association, it was too big, too vigorous an expression of a dawning human aspiration, to belong to an individual, a group, or an organization. It has spread far beyond its early bounds. May Day now belongs to the nation. The original idea has greatly expanded.

The first May Day was set in the shadowed and gloomy aftermath of the war. It was an expression of the instinctive impulse of a world, bruised and marred, to turn to the child to conserve and protect. The keynote of the early celebrations was the hope of the child physically free from handicaps. Gradually the festival has outgrown the negative aspect and taken on the positive, becoming a celebration of wholeness, with the focus steadily towards the future.

The May Day child has grown rapidly. Last year the emphasis was upon the perfect child, expressed in terms of the mental as well as physical. This year the May Day child reaches to full stature, for to the physical and mental is now added the spirit.

The message of this May Day will spread through the channel of the churches of the country, of all creeds and all faiths, and they will give back their interpretation of that light of the spirit within, which gives completion to the child, and to which all else is subservient.

May Day this year celebrates the whole and perfect—the threefold child.

The May Day idea thus stands rounded and fulfilled. The hope of this perfect child reaches a long way ahead of actual accomplishment, an ideal as yet, but with approaches and means growing in definiteness. Human aspiration must always lead the way, before science and research can follow and blaze trails.

With this vision of the whole child which it will endeavor to express in every possible way this year, May Day appears as a joyous festival of the hope of childhood triumphant, of the onward march of the race. It is not a mere flare for one day. May Day, it has been proved, holds within it the power of stimulus to permanent and continuous endeavor. All that it throws upon the screen, in parade and pageant and story, goes quietly on through every day in the year. This is merely the occasion for focussing attention, the impetus to enlargement of effort already begun, and the beginning of new.

May Day belongs now to the nation—and to the world. It finds expression through every other organization that touches the life of the child; through national and state bodies, such as the Children's Bureau, Department of Agriculture, the Red Cross, the United States Public Health Service, the State Departments of Health and Education; through lay organizations, such as the American Federation of



Labor, the American Legion, the General Federation of Women's Clubs, the National Congress of Parent and Teachers, the Girl and Boy Scouts; through the schools. And now is added the last great link in the chain—the Church.

Into the hands of each of these bodies has been given the idea of a festival of childhood, and each has added its contribution, colored with its own interpretation. May Day has become like a river, growing and swelling with its tributaries.

This new day of celebration should give us great encouragement, for in the hold with which it has gripped the country, one can trace strong moulding forces which are quietly and subtly at work within our national life, serving as the hopeful antidote for influences apparently disintegrating and destructive.

This year May Day offers a new challenge to all those concerned with the well-being of children, the challenge to recognize the spiritual child and to deal with it in the same spirit of thoroughness and soundness that marks our dealings with the mental and physical aspects of the child.

By restoring to children their spiritual birthright shall we march forward with sure step through the quicksands of change and confusion to a clearer goal.

---

#### MILITARY SURGEONS INVITED TO POLAND

---

The republic of Poland, through its legation in Washington, D. C., extends an invitation to all physicians and others who have held commissioned rank in the medical service of the army or navy to attend the fourth International Congress of Military Medicine to be held at Warsaw, May 30-June 4; their wives and unmarried daughters are also invited. Registration should be made before the first of March, addressed to Lieutenant-Colonel Sokolewicz, treasurer, Fourth Congress, Department VIII, Ministry of War, Warsaw, Poland, enclosing a money order for thirty zlotys for each member and twenty for each woman.—The Journal of the A. M. A.

---

#### ACTIONS FOR ALLEGED INJURY FROM DOUCHE IN HOSPITAL

---

(Mills vs. Richardson [Me.], 130 Atl. R. 353)

The supreme judicial court of Maine had here two actions, brought respectively by Mrs. Mills and her husband. The defendant was a physician and surgeon who owned and conducted a hospital. In 1918 another physician took Mrs. Mills to the hospital to be a patient during childbirth. According to the testimony of the defendant, he had nothing to do with Mrs. Mills' case except to supply the hospital and nurses. He did not treat the case, Mrs. Mills was in no sense his patient, and he gave no directions concerning her treatment; the physician who took her to the hospital was her attending physician.

The original declarations charged that the defendant was employed as a physician and surgeon to attend Mrs. Mills in her approaching illness, and that her injuries were the result of his negligence, or the negligence of those who were his servants, in that the defendant, by his servants, who were nurses at the hospital, "improperly, unintelligently and unskillfully, and carelessly and negligently washed and bathed the body of the plaintiff (Mrs. Mills) with an excessive and dangerous amount of bichloride of mercury". At the trial term of the court below plaintiffs offered amendments to their declarations which omitted to charge that the defendant's negligence as a physician and surgeon, through his servants, was the cause of the injuries complained against, but did charge that the defendant held himself out as conducting and maintaining a competent and reliable hospital, employing nurses and attendants of great skill and ability, and qualified properly and intelligently to care for all diseases and physical infirmities. The amended declarations then proceeded to charge that the defendant was employed "to properly and intelligently care for her said condition until she should deliver forth child and become well". In appropriate language the amended declarations then declared that the defendant, by one of his servants, a nurse employed in the hospital, carelessly and negligently bathed Mrs. Mills with an excessive and dangerous amount of mercuric chloride, from which negligent treatment she received painful and permanent injuries. The defendant objected to these amendments on the ground that they set forth a new and different cause of action. It was quite apparent that the original declarations charged the defendant with liability in his capacity as a physician and surgeon, while the amended declarations charged him with liability as proprietor and manager of a hospital, regardless of the question whether he was acting as a medical man or a layman. But the amendments were allowable, as this court has held that new counts are not to be regarded as for a new cause of action when the plaintiff in all the counts attempts to assert rights and enforce claims growing out of the same transaction, act, agreement or contract, however great may be the difference in the form of liability, as contained in the new counts, from that stated in the original counts. The statement of the liability of a defendant may vary when the wrong done and the loss occurring are the same.

Mrs. Mills made no complaint of any improper treatment before that, as she testified, she was given a douche containing an excessive amount of mercuric chloride, which caused burning of a portion of her private parts. From this burning she said that she had sustained the injury from which serious and lasting consequences followed. But for nearly six years she made no complaint to the defendant, and then, only a few days before the action would be barred by the statute of limitations of Maine, she made known to him that she believed she had a cause of action against him for negligence of his

nurse in administering the douche. After examining the entire record with great care, this court is compelled to the conclusion that the jurors erred in their finding for the plaintiffs. Taken at its best, especially in the light of the testimony given by medical experts called by both sides, the conditions of which Mrs. Mills complained were more likely to have arisen from leukorrhea and other physical conditions, than from the douche. The defendant's motion for a new trial sustained.—Journal of the A. M. A.

---

### QUARANTINE IN CASES OF PNEUMONIA

---

Dr. C. J. Varrax, public health director of Pittsburgh, Pennsylvania, in an observation of 5,000 cases of colds, holds that colds or influenza antedated 72 per cent of the cases of pneumonia and that quarantine of colds or influenza was the most certain means of preventing pneumonia, at least of sufficient value to be worth while. Pneumonia is so little amenable to treatment and gives such high mortality that if further investigation should sustain such views, quarantine of colds, even if involving some loss of time, should be required.

---

### SUMMER CLINICS, CHICAGO MEDICAL SOCIETY, 1927

---

Announcements and schedules will soon be ready for the 1927 Summer Clinics of the Chicago Medical Society, supported by many of the largest hospitals in the city, among them being the Post Graduate Hospital, Chicago Memorial Hospital, University of Illinois College of Medicine, Cook County Hospital, Michael Reese Hospital, Mercy Hospital, Presbyterian Hospital, Jackson Park Hospital, St. Luke's Hospital, Ravenswood Hospital, Mount Sinai Hospital, Francis Willard Hospital, West Suburban Hospital, Evangelical Hospital, North Chicago Hospital, Chicago Lying-in Hospital, St. Joseph Hospital, Alexian Brothers Hospital, Laboratory of Surgical Technique, Washington Park Hospital, Jackson Park Hospital, Chicago Municipal Tuberculosis Sanitarium, John B. Murphy Hospital. Several of our large laboratories have also agreed to cooperate with us in this great work.

In 1926 we limited registrations to physicians living in Illinois, but our increased facilities make it possible to accommodate many more than last year. Registrations therefore will be open to physicians from other states and to as many as may be accommodated, in the order of their registrations. Registration fee will be \$10 for each two weeks course, payable at time of registration and a physician may register for only one course of two weeks.

Admission will be by card only, issued by the Chicago Medical Society and no registration card will be issued until registration fee is paid.

The first two weeks course will begin on Monday, June 13, 1927, at 9 a. m., ending Friday, June 24.

The second two weeks course will begin on Monday, June 27 at 9 a. m., ending Friday, July 8.

This is an excellent opportunity for the medical men of the country to obtain real post-graduate work in some of the best hospitals in the world, and from some of the best clinicians found anywhere.

Schedules will be sent to the 10,000 physicians in Illinois, and announcements will be sent to the American Medical Association, and the several state medical journals.

We will probably be unable to accommodate all those desiring this wonderful clinical course, so it behooves those in Chicago and Illinois to register early if they desire to take advantage of this year's summer clinics. Last year our registrations closed one week after the first announcement.

---

### CENTRAL CLINICAL RESEARCH CLUB

---

A small group of internists from Minneapolis, Rochester, Chicago, St. Louis and Iowa City have formed the Central Clinical Research Club. The objects of the club are the stimulation of original work and clinical investigation; the development and improvement of methods of teaching; the demonstration of work in the sciences closely allied to medicine; the development of the investigative spirit in younger men, and the promotion of good fellowship among members. Current investigative work is presented, but formal papers are not given. At the second semi-annual meeting, held recently at Iowa City, about twenty informal papers and demonstrations were presented.—The Journal of the A. M. A.

---

### PROFESSOR ALDO CASTELLANI

---

Prof. Aldo Castellani, who was placed at the head of the School of Tropical Medicine of Tulane University in 1926, is a man of wide experience and will no doubt contribute much to the credit of tropic medicine in the United States. The importance of New Orleans as a port in our relation to the tropics logically leads to a great school of tropical medicine in that city.

Aldo Castellani was born in Florence, Italy, September 8, 1876, graduated as a doctor in medicine from the University of Florence in 1899. He studied in Bonn, Germany, under Kruse, then in the Lister Institute in London. He was sent by the British Foreign Office to Uganda to investigate sleeping sickness in 1902. In 1903 he was head of tropical medicine in the Ceylon Medical School. In 1915 he became professor of tropical medicine in the University of Naples. Soon after he joined the Italian army medical service as lieutenant-colonel. In 1918 he settled down in London as director of tropical medicine and in 1926 became professor of tropical medicine in Tulane University. During the widespread activities in tropical medicine, Professor Aldo Castellani made many important discoveries and received many honors.



## SOCIETY PROCEEDINGS

### Buchanan County Medical Society

The Buchanan County Medical Society met in Independence March 24. The program was in charge of Dr. H. A. Householder of Winthrop and Drs. J. H. McGready and J. W. Barrett of Independence.

### Clinton County Medical Society

The Clinton County Medical Society held an important meeting, February 24, 1927, at the Lafayette Hotel. The guest of the evening was Dr. C. W. Hopkins of Chicago. After a most generous banquet, the society was called in session by the president, Dr. H. E. Martin, who introduced Dr. C. W. Hopkins, the speaker of the evening.

Dr. Hopkins presented as the subject for discussion, Brain Injuries. Dr. Hopkins as chief surgeon of the Chicago and Northwestern Railway has enjoyed a large experience in this class of surgery, and from an exceptional fund of observation brought before the society much valuable information on this difficult subject. The discussion was opened by Dr. Fairchild, followed by Dr. Murphy of Dixon, Illinois, Drs. Weih, Knudson and Kershner of Clinton. The discussion presented by Drs. Weih and Murphy was particularly valuable and interesting. Dr. Hopkins closed. President Martin and secretary Lenaghan are to be congratulated on the success of the meeting and the prospect of a year of successful society work.

In this connection may be mentioned the notable society dinner given by Dr. J. C. Langan a few weeks later. At their beautiful home Dr. and Mrs. Langan served an elegant banquet-dinner to members of the Clinton County Medical Society. These two events mark a period in the history of Clinton county medicine not soon to be forgotten. The social side of professional life receives scant recognition by doctors and their families and keeps them too far apart. When events as here recorded come to our knowledge we have a feeling of hopefulness that must find expression. The generous act of Doctor and Mrs. Langan in bringing together so many professional associates deserves an appreciative notice.

### Des Moines County Medical Society

March 8th the Des Moines County Medical Society and the Burlington Dental Study Club held a joint session at the Hotel Burlington. Dr. F. B. Moorhead of Chicago presented a paper on Some Observations on the Pathology of the Mouth in Relation to Medical and Dental Practice. Following the joint meeting Glen Clay, a local attorney, gave an address on Legal Aspects of Medicine. During the course of the session the society placed itself on record as opposing the amendments to the Perkins, Haskell-Klaus law.

### Fayette County Medical Society

On January 9, Fayette County Medical Society held an all day session at Oelwein. Several important operations were performed as the clinic feature of the meeting. An important feature of this county gathering of medical men was the discussion of the Acute Abdomen by Dr. Carl A. Meyer of the Cook County Hospital, Chicago. From the report which has come to us the session was full of professional interest and good fellowship.

The following doctors were in attendance at the banquet: Karl A. Meyer, Chicago; Adolph Krafte, Chicago; C. J. Cooney, Oelwein; G. N. Wassom, Oelwein; Smith Kennedy, Oelwein; J. D. Parker, Fayette; F. C. Sauerbry, Arlington; H. Risk, Oelwein; Cahill, Volga City; J. W. Donnell, Hazelton; C. D. Merse, West Union; J. B. O'Connor, Oelwein; F. C. Leehey, Oelwein; D. N. Pattison, Oelwein; L. W. Ward, Fairbank; D. W. Ward, Oelwein; J. M. Smittle, Waucoma; C. M. Hazard, Arlington; C. A. Brown, Westgate; R. A. McLeon, Fayette; Logue, Fairbank; S. C. Ainsworth, Volga City; J. R. Woods, Wadena; H. H. Hunt, Hazelton; Paul E. Gardner, New Hampton; C. C. Hall, Maynard.

### Johnson County Medical Society

The Johnson County Medical Society met at its regular monthly meeting at the Chamber of Commerce rooms, Iowa City, April 6. The society was the guest of Doctors Conwell, Fitzpatrick, Harding, J. N. Smith and Whiteis.

After dinner the society adopted resolutions of appreciation for Dr. J. P. Mullin, whose death occurred early in the day of the meeting.

The scientific program:

An excellent presentation of Some Aspects of Fundus Diagnosis, was given by Dr. C. S. O'Brien.

Dr. Rockwood gave a report on a case of Food Poisoning, which was probably one of protein sensitivity.

Dr. Harding gave a brief but excellent talk on Anesthesia in Certain Difficult Conditions, Especially Heart Conditions.

Great interest is being manifested in the meetings of the society, this being the fourth enthusiastic meeting of the year. Fifty members and visitors were present.

Geo. C. Albright, Sec'y.

### Linn County Medical Society

The Linn County Medical Society presented the following program for its April 14th meeting:

Some Side-Lights, by Hon. B. F. Butler, Judge 21st Judicial District.

Psychiatry—As Related to General Practice of Medicine (lantern slides), by S. F. Orton, M.D., director of Psychopathic Hospital, Iowa City.

### Mahaska County Medical Society

Mahaska County Medical Society held its regular monthly meeting on April 5 at Oskaloosa. Dinner

was at 6:30 followed by the regular order of business. Dr. F. W. Rice, of Des Moines, presented a most interesting paper on the Late Toxemias of Pregnancy, which was thoroughly enjoyed by the society, as most of our members do obstetrical work and are vitally interested in this subject. Dr. L. A. Rodgers opened the discussion and was followed by several other members. There was a short business session and the meeting adjourned. Geo. H. Clark, Sec'y.

---

#### Page and Fremont County Medical Societies

Page and Fremont County Medical Societies held a social and scientific session March 2nd at the Hotel Delmonico, Shenandoah. Following a 6:30 dinner papers and discussions by Dr. E. S. Henry and Dr. E. E. Kelley of Omaha constituted the program of the evening.

---

#### Iowa Clinical Medical Society

The Iowa Clinical Medical Society held its spring meeting in Council Bluffs, on March 26, 1927. Clinical cases were presented by Drs. V. L. and J. V. Treynor, A. A. Johnson, W. E. Ash, all of Council Bluffs, and J. C. Parson of Creston. Newly elected officers are: Dr. E. T. Edgerly of Ottumwa, president; Dr. Fred M. Smith, of Iowa City, vice-president; Dr. Russell C. Doolittle, of Des Moines, secretary and treasurer.

---

#### MEDICAL NEWS NOTES

Dr. G. D. Darnall of West Union, soon to be eighty-four years old, and believed to be the oldest practicing physician in the state of Iowa, has a record of many unusual activities and accomplishments. He has been active in practice as a physician for fifty-six years.

Dr. Darnall has been a member of the Fayette County Medical Society since 1874 and has served in all its offices.—Dubuque Telegraph.

In spite of the large proportion of Sunday schools, cinemas and golf courses in Iowa, the suicide rate for the state in the last two years has been higher than the average for the entire country, Dr. J. W. Wallace of the state department of health reported recently.

In Iowa, in 1925, 334 persons, and, in 1926, 372 persons chose suicide as the means for shuffling off this mortal soil, Dr. Wallace reports. The United States reported 12,495 suicides for 1925, or a rate of 12.1 per 100,000 population. Iowa's rate was 14.3 for 1925 and 15.3 for 1926.—Des Moines Register.

---

#### PERSONAL MENTION

Dr. James M. Fettes of the Le Mars' Clinic has sold his interest in the clinic to Dr. Wendell Downing and will leave in a short time for the Pacific Coast.

Dr. Charles H. Cogswell of Cedar Rapids, in spite of his eighty-three years and his 1866 year of graduation, is still "on call" day or night.

Dr. J. A. Cahill of Volga City is taking post-graduate work in New York City under Dr. Frank Albee and Dr. J. J. Moorhead for several months in orthopedic and traumatic surgery. After completing this work Dr. Cahill will attend clinics in Philadelphia, Baltimore, Boston and Cleveland.

Dr. O. W. Parrish of Osceola celebrated his eighty-eighth birthday on March 8th. The Osceola Sentinel states that Dr. Parrish is not only Clark county's oldest physician but one of our most beloved citizens. Dr. Parrish was a member of Company B, Third Iowa Infantry in the Civil War.

---

#### OBITUARY

Dr. H. C. Eschbach died at his home in Albia, Friday, March 25, 1927, at the age of seventy years. We feel in the death of Dr. Eschbach a personal loss, in that we have been intimately associated with him in a professional way for many years, at least since 1884, when he became a member of the Iowa State Medical Society.

In relation to his medical society work, his modest and retiring ways led to slow advancement in position and influence, but little by little his constant attendance and wise council brought his name so prominently before the profession that when questions of policy came before the society, Dr. Eschbach's opinion was always sought, and he was turned to in the formation of important committees. During the trying days of the reorganization of the Iowa State Medical Society, under the reorganizing plan of the American Medical Association, Dr. Eschbach rendered valuable aid in reconciling the Iowa profession to the, at that time, radical plan, which is now recognized as if it always had been.

Dr. Eschbach presented a number of valuable contributions, one in particular, a paper on "Myocarditis" read before the State Medical Society at Sioux City and published in the Journal of the Iowa State Medical Society.

Dr. Eschbach was elected president at the Sioux City meeting and presided at the Waterloo session in 1915. At the 1926 session at Des Moines, the By-Laws, so far as relates to the functions of the Board of Trustees, were amended. Dr. Eschbach was made a member of the committee on Medical Defense but unhappily an insidious and fatal disease deprived the Iowa profession of the benefits of his sound judgment and unselfish devotion to the interests of the profession collectively, and to an unusual degree to the individual member. His kind face and generous spirit will be greatly missed at our annual sessions. It is not alone the above performance of the medical practitioner that fills a place in a state or community, but also the fine spirit of the upright man; the environment, early associations and surroundings, have a full measure. Much may be predicted on a man's own estimate of





DR. H. C. ESCHBACH

Born October 23, 1856, died March 25, 1927

himself. Fortunately we have in Dr. Eschbach's own words an outline of his efforts and accomplishments. These we may read with a lively appreciation of the men who are rapidly passing.

From the *Albia News* we take what Dr. Eschbach says of himself:

A detailed account of the early life of Dr. Eschbach was written by himself in September of 1925, as follows:

"I was born October 23, 1856, in Northumberland county, Pennsylvania. I was the fifth son of David and Sarah Eschbach. Our house was on the original purchase of my grandfather and great grandfather in Turbot township. This tract and the

community adjacent was known as 'Paradise' because of the natural fertility of soil, charming scenery and rural beauty. It is universally agreed that the name was worthily bestowed.

"Within a few weeks I was baptised a member of the Reformed church the denomination to which my parents and their ancestors for many generations had belonged. At four and one-half years I began to attend the Paradise school which was a half mile from my home, and to my best recollection I never missed a day when school was in session until I was past fifteen years of age. I think too that I never missed a Sunday at Sunday school and church or a Wednesday evening prayer meeting at the Paradise church during all the years I lived at home.



DR. ALFRED L. BROOKS

Born June 6, 1858, died 1927

"When I was about eleven years of age I joined the Catechital class of the church taught by its pastor, the Rev. Henry Mosser, and was instructed in the doctrines of the Heidleberg Catechism, the fundamentals of Christian life as understood by my ancestors. I can not recall that one word was ever said to me by my parents or any one else about joining the class or the church or the Sunday school. Being raised in a Christian family, these were acceptable things and I considered them as matters of course. When I was twelve years old, I was confirmed as a full member of the church by the Rev. Henry Mosser.

"I worked on the farm in the summer when there was no school. In fact I cannot remember how old, or rather how young, I was when one of my regular chores was to drive the cattle to the pasture in the morning and drive them back in the evening. I only

remember that I began it when I was too young to do it without the help of a dog and sometimes it was too much for both of us.

"When I was in school there was always plenty to do in caring for the stock, morning and evening, repairing fences and sawing and splitting wood for fuel. Saturday was not a holiday in the sense of a cessation of work. There was no school that day, but steady work, except during a part of the year we put on our good clothes and Saturday afternoon at two o'clock we went to the church and recited our lesson from the Heidleberg Catechism. Then back home and to work sawing wood again. Perhaps this routine helped in my enjoyment of the lessons in the catechism. At all events this work helped in developing my physical being.

"When I was fifteen years of age I enrolled in the Turbotville Academy, taught by A. D. Hower, a



very excellent teacher and a strict disciplinarian. I traveled four miles morning and evening on foot during the autumn and on horseback during the winter, and that being an open winter, I traveled much of the time in mud knee deep. At fourteen I had attended one term of the Limestoneville Academy and when I was sixteen this school was again opened and I attended there for more than a year under the teaching of Jacob Shadle. This academy was two miles from home and I traveled this on foot in addition to doing the usual amount of choring morning and evening.

"In September, 1875, I entered the Franklin and Marshall Academy at Lancaster, Pennsylvania, and passed my college entrance examination in June, 1876. In September, 1876, I entered the freshman class of the Franklin and Marshall College and graduated in the degree of A.B. in June, 1880. In October that year I entered the medical department of the University of Pennsylvania at Philadelphia and took my degree of M.D., there April 13, 1883.

"In May, 1883, I came to Des Moines and after three years of a struggle there I moved to Monroe, Jasper county, Iowa, and at once began a hard practice there which lasted for two years. Most of my practice there required me to travel on horseback.

"On January 1, 1888, I came to Albia and have lived here ever since. On May 12, 1892, I was married at Peterboro, New York, to Augusta Mattewson Coe. To us have been born three children: Florence on January 4, 1894; Barbara on August 5, 1896, and Martha on August 6, 1899.

"In addition to the practice of medicine in this community I would record my medical activities as follows: In the summer of 1883 I joined the Polk County Medical Society at Des Moines. In 1884 I was a delegate to the Iowa State Medical Society and have retained continuous membership in this society ever since. In 1880, having moved to Jasper county, I joined the Jasper County Medical Society and in 1889 a year after coming to Monroe county, I was elected president of the Jasper County Medical Society.

"In 1889 I joined the Des Moines Valley Medical Society and have retained my membership in it ever since and served one year as its president. In 1902 I was appointed by Dr. James Taggart Priestley, then president of the State Medical Society as chairman of the section of medicine in the Iowa State Medical Society and organized the program and had charge of the section in its meeting at Sioux City, Iowa, in May, 1903. During the period George W. Clark of Grinnell was president, he appointed me chairman of the section of obstetrics and gynecology and I served in that capacity at its annual meeting at Cedar Rapids.

"In 1904, after the reorganization of the State Medical Society at the Sioux City meeting, I issued the first call for the formation of the Monroe Medical Society and was elected its first president, serving for two years. I was the first delegate from the Monroe county society to the State Society in 1904

and was at that meeting made councilor for the sixth district and served in that capacity until I was elected president of the State Medical Society in 1913.

"In 1887 I attended my first meeting of the American Medical Association at Chicago, Illinois, and have been a member of this national association ever since.

"In 1913 I was elected a Fellow of the American College of Surgeons and was inducted into full membership in the college at its third convocation in Philadelphia.

"In 1921 Governor N. E. Kendall appointed me as a member of the Iowa State Board of Health to serve for five years. I attended all the meetings of the board until I resigned my commission in October, 1925."

---

**Resolutions of Appreciation of Doctor J. P. Mullin  
By the Johnson County Medical Society,  
April 6, 1927**

Doctor J. P. Mullin, born 1864, died 1927. A simple statement, marking the beginning and close of a busy and useful life. His life history, in all its services, was one each member of this society would do well to emulate. Quiet, unostentatious, quick to respond to every service when called upon by those who sought him in times of distress and sickness. He truly exemplified that type of family physician which has all but disappeared in these day of modern activities.

The writer of this appreciation remembers him well as a student in the College of Medicine of the University, long years ago. He filled many positions in it, both before and after his graduation, and always acceptably to his chiefs and fellow-students. As a practitioner, till his health began to break some years ago, he was one our busiest and most popular men. His clientele always welcomed his coming and regretted his departure from the homes he visited.

His services, too, extended beyond his practice in our city, since the date of his graduation from the College of Medicine in 1895. He served the city not many years thereafter as its health officer most efficiently. Also, during the past four years, he has served it as one of its councilmen-at-large, a well-deserved mark of respect. Mayors Harvat and Carroll and the city clerk during these years, join us in this tribute, declaring he was always faithful in discharging every trust imposed in him.

In his home and church life, too, he was ever true to his obligations. Following so soon as he has our other brother physician, Doctor Grant, who so recently passed from among us, we are compelled to pause in the bewildering multiplying calls to service which confront us, to consider the brevity of life and the certainty of death.

We wish, therefore, to lay an immortelle to the memory of this kind friend and excellent physician whose tireless and unsparing service have so sadly terminated. Hail, comrade! and farewell, good friend!

Dr. Charles J. O'Keefe died at his home in Marble Rock, January 13, 1927, at the age of fifty-four years, from heart disease, after an illness of four years. Dr. O'Keefe was born March 1, 1872, in Burkley township, Blackhawk county. After graduating from a business college in Waterloo he attended the Iowa State University and graduated from the Drake University School of Medicine in 1894. After graduating from Drake he located in the practice of medicine at Marble Rock, where he resided up to the time of his death, practicing for a period of more than thirty years.

During the World War he enlisted in the medical corps of the Army and served as a first lieutenant. He was a member of the American Legion, and of the Knights of Columbus. Soon after locating in Marble Rock he married Miss Matie Page who survives him, also, a brother, Dr. M. J. O'Keefe, the well known surgeon of Waterloo.

Dr. Elwood Rush Stroup of Fontanelle died at his home February 1, 1927 at the age of fifty-five years. He was born near Gallatine, Davis county, Missouri, December 14, 1871, son of Dr. Ephraim Stroup, who was for many years a physician in Colwell county, Missouri. He received his education at the rural schools near his home, Grand River College at Gallatine, and the Teachers Normal School at Chilli-cothe, Missouri. For five years he was engaged in teaching school. Dr. Stroup graduated from Barnes Medical College, St. Louis, in June, 1905. He first located in Weatherby, De Kalb county, Missouri, and in 1915 moved to Fontanelle, where he practiced up to the time of his death. At various times from 1903 he attended post-graduate schools in New York and Chicago. On May 23, 1900, he married Mary Alice Clompitt of Hamilton, Missouri, who survives him. Dr. Stroup was a member of the A. M. A., the state and county medical associations, the Masonic Order and the I. O. O. F.

Dr. Charles S. Grant died at his home in Iowa City, December 10, 1926, from a septic infection after an illness of several weeks.

Dr. Grant was born at Ithaca, New York, July 6, 1872 and came to Iowa City as a student in the University. At that time his uncle, Dr. Charles Ashmead Schaeffer, was president. Dr. Grant entered the school of pharmacy; after completing his course he entered the school of medicine. His first location following his graduation in medicine was Badger near Fort Dodge, and at Riverside, Washington county, before locating permanently in Iowa City.

Dr. Grant very early in his practice in Iowa City became interested in local affairs, particularly in health matters, and later became a member and president of the Iowa State Board of Health. He was also interested in state military affairs, and during the Spanish-American War he served as first lieutenant and later as major and surgeon of the 50th Iowa Vol-

untary Infantry. During the World War he was the medical member of the draft board for the southern district of Iowa. In this trying position he rendered valuable services. Dr. Grant was particularly noted for his tactful methods in dealing with difficult and complex problems, in local and state health matters, but not at the cost of efficiency.

Few medical men have been more useful in their communities than was Dr. Grant as physician and as a citizen. He also rendered to the University valuable services as instructor in pediatrics.

Dr. Joseph W. B. Flageolle of Sioux City died suddenly March 3 at Mercy Hospital at the age of thirty-eight years. Dr. Flageolle was born at Ponca, Nebraska, July 12, 1888. He graduated from St. Viator College at Kankakee, Illinois, and in medicine from the Chicago Medical College (Northwestern). He served as second lieutenant in the Second Battalion of the Fifty-Third Infantry, was twice gased and from this was laid the foundation for his early death. After his discharge from the army, Dr. Flageolle specialized in neurology.

Dr. C. H. Irvin of Earlham died at his home January 2, 1927, following an intestinal affection. He had practiced in Earlham thirty-five years.

Dr. Josephine W. Rust died in Des Moines, December 31, 1926, at the age of fifty-six years. She had formerly been physician to the Fort Dodge public schools. Dr. Rust graduated from the Womans' Medical School of Northwestern University and practiced in Grinnell for more than twenty years. For the past four years Dr. Rust was associated with the Sheppard-Towner maternity and infancy hygiene work conducted through the extension division of the Iowa State University. She had lived in Des Moines about one year.

Dr. James Harlow Graham died at his home in Manilla, Iowa, February 19, 1927, following an illness of three months' duration. He was born in the state of New York, June 29, 1852. Dr. Graham graduated from the Keokuk College of Physicians and Surgeons in 1876, and commenced the practice of medicine at Garwin. In 1887 he moved to Manilla where he practiced forty years. On January 13, 1876, Dr. Graham married Ida J. Breckenridge, who died June 13, 1881. Three years later he married Maye V. Conner.

Dr. Harry Young of Manson died at a Fort Dodge Hospital, March 14, 1927, at the age of eighty years. Dr. Young received his medical education at the University of Michigan and at the Chicago Medical College, from which he graduated in 1872. He practiced in Manson fifty-five years. Dr. Young served as state senator in the twenty-fourth and twenty-fifth assemblies, was chairman of the appropriation committee.



Dr. Fred Lintleman died March 7, 1927, at Jamesville, Wisconsin. He was born at Malta, Illinois, in 1889, came to Lake City, Iowa, with his parents, graduated from the medical school of the Iowa State University, practiced in Harlan for nine years. In 1913 he was a post-graduate student in New York City, where he specialized in diseases of the eye, ear, nose and throat, after which Dr. Lintleman located in Jamesville, Wisconsin.

Dr. Edmond B. Fulliam died at his home in Muscatine, December 5, 1926, at the age of sixty-eight years. Dr. Fulliam had not only been prominent as a physician but also in civic affairs. He had served one term as representative in the legislature from Muscatine county, and at one time was mayor of Muscatine.

Dr. Fulliam was born in Muscatine sixty-eight years ago; is survived by his wife, one son, Dr. Ed B. Fulliam, Jr., and two daughters.

Dr. J. Rawson Pennington, who died February 3, 1927, was well known to many Iowa physicians. He had at various times addressed local societies on his specialty, diseases of the rectum. He was a man of great vigor, was always active in advancing medical interests and contributed much to the literature of his specialty.

Dr. C. C. Shope died at his home in Des Moines, March 30, 1927, following a stroke of paralysis in November, 1926. Dr. Shope was born in Iowa Center sixty-one years ago, graduated from the Iowa College of Physicians (Drake). Prior to taking up the study and practice of medicine Dr. Shope was engaged in the drug business in East Des Moines. At one time he was a country physician and at the time of his death was a member of the Lutheran Hospital staff.

## BOOK REVIEWS

### SOUTH AMERICA

A Guide Book for Lay and Professional Travelers. By Franklin H. Martin, C.M.G., M.D., F.A.C.S. In Collaboration with William J. Mayo, M.D., Francis P. Corrigan, M.D., and Edward I. Salisbury, M.D. Fleming H. Revell Company, Publishers, 158 Fifth Avenue, New York City.

The frontispiece is of the president of the United States, Calvin Coolidge; there is an introduction by Dr. William J. Mayo, and the detailed itineraries which were followed by the contributors to the volume.

First edition, published in 1923, has been completely revised, and amplified to include all of the Latin American countries. Section I of the book contains a chapter on each of the Latin American countries, with a full and complete description and many illustrations.

Section II contains a summary report of the relation of the American College of Surgeons to the Latin American countries.

Section III deals extensively with the Surgeons and Medical Institutions of Latin America, and is profusely illustrated. Any medical man who contemplates a trip to any of the Latin American countries will find "South America" invaluable.

Section IV contains a complete summary of facts, Historical, Geographical, Political, Social and Industrial. In this portion of the book may be found a summary of all information that may be of interest either to the traveler or to the historian.

Section V contains an English-Spanish and English-Portuguese vocabulary which would be most helpful and almost invaluable to anyone contemplating a voyage to Latin America, and both vocabularies are a splendid basis for the study of Spanish or Portuguese.

Section VI contains tables of weights and measures, both the standard and metric systems, and a comparison of the two.

Section VII is a complete index of "South America".

### THE TREATMENT OF FRACTURES

With Notes Upon A Few Common Dislocations. By Charles L. Scudder, M.D.; Consulting Surgeon to the Massachusetts General Hospital, Formerly Assistant Professor of Surgery at the Harvard Medical School. Tenth Edition, Revised; Octavo Volume of 1240 Pages, with 2027 Illustrations. W. B. Saunders Company, 1926; Polished Buckram \$12.00 Net.

Dr. Scudder's work on Fractures has for many years been regarded as a standard authority on this subject and has grown in value with each succeeding edition, and this, the tenth edition, brings us to a point of perfection, as nearly as possible, considering the limits of surgical knowledge.

There will probably always be certain points of controversy in regard to mechanical means of retention in reduced fractures, and we would therefore especially consider chapter nine: Extension and Counterextension, by Thomas Principles; Weight or Mobile Traction; Hodgins' Principles of Traction; and chapter ten: Skeletal Traction—Bone Traction. These two chapters are of first importance and if studied carefully will give the results desired. Another subject of special importance may be found in chapter thirteen: Peripheral Nerve Injuries Associated with Fractures. Nerve injuries are quite common and are often overlooked, because of the hasty and casual examination may be divided into three classes:

First—Primary lesions occurring at the time of the injury to the bone.

Second—Secondary lesions gradually developing during the healing of the fracture.

Third—Late paralysis that makes its appearance many years after the fracture occurred.

Since the x-ray has come into use in diagnosing fractures, and in checking up fractures at the time of reduction, and from time to time during the healing, it is possible for the surgeon to keep himself informed as to the condition as may appear necessary, and make certain improvement in the position of the bones. The x-ray may be employed to expose the failure of the surgeon and is much used in court, often unfairly.

As in all works on fracture considerable space is given to operative and non-operative treatment. In arriving at a conclusion as to which method should be used in a given case, a study of the chapters on this subject found in Scudder will be very helpful. The surgeon who treats fractures should always have in mind the danger of a malpractice suit and keep himself freely informed as to the progress of the case. The many illustrations in this work will be helpful to the surgeon interested in fractures.

#### METHODS AND PROBLEMS OF MEDICAL EDUCATION

Fourth Series. Division of Medical Education. The Rockefeller Foundation, 61 Broadway, New York City, 1926.

This issue has to do principally with the Unit History System of the Presbyterian Hospital of New York City, including a Follow-Up System.

The features of history-taking are presented by members of the Rockefeller Foundation, illustrated by numerous diagrams to show the form of a complete Unit History System for the use of hospitals.

#### THIS BUSINESS OF OPERATIONS

By James Radley. Foreword by J. M. Withrow, M.D., Chief of Staff, Christ Hospital, Cincinnati. The Digest Publishing Co., Cincinnati, 1927.

This small volume of 96 pages presents a well told story of the experiences and the psychology of an average person undergoing a first contact with hospital life and surgical operation. While the story is written in a lighter vein, it contains a philosophy which might prove inspiring to one needing hospital care and make their stay in such an institution more livable.

R. R. S.

#### HAY-FEVER AND ASTHMA

A Practical Handbook for Hay-Fever and Asthma Patients. By Ray M. Balyeat, A. M., M.D., Instructor in Medicine in the University of Oklahoma, School of Medicine. With 27 Illustrations. F. A. Davis Company, Philadelphia, 1926.

It was not many years ago, about 1873, when it was thought that asthma and hay-fever were due to dust in the air, but since that time many discoveries have been made as to a sensitizing agent inhaled or

taken into the system in some other way. So distressing are the symptoms, and so inconvenient is the occurrence of the disease that the patient seeks widely for relief. It means that a patient shall find the sensitizing agent and avoid it by temporary change of residence, submit to an immunizing treatment, or a local treatment that will render the respiratory mucus membrane less sensitive to a special irritating agent. The purpose of this book is to consider what is known of agents which produce asthma and hay-fever, how the diseases may be prevented and how treated.

#### CONFERENCES OF THE AMERICAN ASSOCIATION OF MEDICAL MILK PRODUCERS

Proceedings of the Nineteenth and Twentieth Conferences of the American Association of Medical Milk Commissions, in conjunction with the Certified Milk Producers' Association of America. Brooklyn, New York, 1926.

This volume presents the official transactions of these joint meetings for the years of 1925 and 1926.

R. R. S.

#### THE SPECIALTIES IN GENERAL PRACTICE

Compiled by Francis W. Palfrey, M.D., Instructor in Medicine at Harvard University, in Collaboration with 14 Other Teachers of Harvard Medical School. Octavo of 748 Pages. W. B. Saunders Company, 1927; Cloth \$6.50 Net.

We have before us an interesting and convenient volume for the general practitioner. The author has recognized the difficulty or impossibility for any medical practitioner to gain a full and complete knowledge of all the departments of medicine of the present day, and the question has often arisen how to secure to the sick one all the advantages afforded by present day practice. In every center of population there are representative groups of highly trained specialists who may afford the highest and most skilled service, which means, of course, more or less numerous consultations. To meet the trend of medical practice without the inconvenience, and the sometimes impossible expense, groups of medical men join in what are called clinics who by exchange of service furnish, to the patient, the advantages of consultations of specialists. There are many difficulties in this arrangement which we may not mention here. Dr. Palfrey, and his associates, to meet the difficulties which we have only briefly referred to, have produced a book which in the hands of intelligent practitioners may help the general practitioner to bring to the service of the patient the wide extended knowledge of present day medicine. Eleven branches of medicine are represented by fourteen other collaborators. It may be inferred that the family physician, with the advantages of a book like this would be able to pre-



pare himself in a measure at least, to meet the requirements of specialists' and group or clinic's practice.

One of the difficulties in the way of the general practitioner is to make general practice interesting and successful. This was attempted by Dr. Palfrey, in a former work, "The Art of Medical Treatment". A careful study of these two books will be inspiring to physicians who have in mind the hope of bringing back the real position of the family physician.

### ALOE'S REMOVAL

The well known surgical supply house of A. S. Aloe Company in St. Louis has been crowded out of their contracted quarters at 513 Olive Street, (the optical store remains there) and are now located in the new Aloe Surgical Building at 1819-23 Olive Street—only three blocks from the Union Station. The removal was necessitated by lack of downtown parking facilities and the growth of their surgical business which required larger and better quarters. Visiting physicians should take note of the new location near the railway center.

### PROTEIN SENSITIZATION

At the beginning of the twentieth century practically nothing was known about protein sensitization, as such, though the phenomenon itself had been

frequently observed. Its most common manifestation not only before that time, but since, has been in the form of so-called hay-fever or pollinosis; but this disturbance is only a type of a constitutional anomaly of a much wider scope, covering, for example, a great variety of food substances, irritating dusts, and animal emanations.

The symptoms of protein sensitization are not specifically indicative of the etiology. Any number of proteins may produce identical symptoms. It becomes necessary, therefore, in any case of hay fever, asthma, urticaria, eczema, gastric disorder or intestinal colic that is not otherwise explicable, to test the patient's susceptibility to one or more of the proteins to which he is exposed.

Protein extracts for this purpose are offered by a number of manufacturers, all embodying, of course, the same principle, but differing in form. Since the tests are made by scarifying the skin and applying the extract in small quantity, as in vaccination, it would seem that the best form of protein extract for this use would be a semi-fluid product, rather than liquid or powder.

This thought has occurred to Parke, Davis & Co., who offer 194 diagnostic protein extracts in glycerin-boric acid paste form, for convenient application. The extracts are obtainable singly and in groups. See the advertisement in this issue entitled "Parke, Davis & Company's Diagnostic Protein Extracts".

*Green Gables*  
THE  
DR. BENJ F BAILEY.  
SANATORIUM  
*Lincoln, Neb*

This institution is the only one in the Central West with separate buildings situated in their own ample grounds, yet entirely distinct and rendering it possible to classify cases. The One Building being fitted for and devoted to the treatment of non-contagious and non-mental diseases, no others being admitted. The Other, Rest Cottage, being designed for and devoted to

THE EXCLUSIVE  
TREATMENT OF SELECT MENTAL  
AND NERVOUS CASES

requiring for a time watchful care and special nursing.

*Send For Illustrated Pamphlet*

Trade-Mark Registered **STORM** Trade-Mark Registered  
**Binder and Abdominal Supporter**  
(PATENTED)



**For Men, Women and Children**

For Ptosis, Hernia, Pregnancy, Obesity, Relaxed Sacro-Iliac Articulations, Floating Kidney, High and Low Operations, etc.

Ask for 36-page Illustrated Folder  
Mail orders filled at Philadelphia only—  
within 24 hours

**Katherine L. Storm, M. D.**

*Originator, Patentee, Owner and Maker*

**1701 DIAMOND ST.**

**PHILADELPHIA**

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, JUNE, 1927

No. 6

## PRESIDENT'S ADDRESS\*

THOMAS E. POWERS, M.D., Clarinda

The record plainly marked by nature in and on the rocks of the ages constitutes a history of man more nearly complete, enduring and far more interesting than any written work of the modern historian.

A careful study of the unmistakable facts left us there, to be read at our leisure, must convince even the most timid and uncertain, be he evolutionist or fundamentalist, that men with a high degree of intelligence have lived on earth from the remotest ages.

Just when or how man originated is a question which involves too wide a range to be considered at this time. A correlation of well known modern facts with Nature's ancient records, as written in her indestructible book, the everlasting rocks, shows that the man of the geological ages compares favorably in many respects with modern man.

Prehistoric man had many characteristics that are common to the man of today. There were the same desires, hopes and ambitions and much the same general manner of living. Today men live in artificial houses, artificially lighted and heated. Then they lived more naturally, which was in some respects at least, to their advantage.

There is evidence that they had a belief in the existence of a Great First Cause of All. But as time goes on men change in their manner and methods of living; through use of knowledge handed down from the experience of all preceding generations, they learn more and more how to apply the natural advantages that were without doubt intended for man's use, to their own benefit and convenience; they became more refined, living with less brutal drudgery, having more time for thought and mental development.

Thus through all the centuries man has reached what seems to us a very high state of civilization, though when one gives the matter a little

thought we see there is yet so much that may be accomplished, that we are only in the infancy of development.

The society of the future will be as much superior to the present as this is above that of the so-called cave man.

The natural resources of the worlds that are all about us are inexhaustible and who can say they are not all intended for the benefit and uplift of man? Nor can the human mind grasp the immensity and significance of the universe.

To illustrate, Dr. Hubbell of the Mt. Wilson observatory is reported to have studied the faint nebular groups that lie quite outside the galaxy of stars of which our own world is a part. Some of them he believes to be five quintillion miles from the earth. That means that light traveling thence at the rate of 186,000 miles a second would take a million years to reach the earth. These nebulae appear to be "Island universes" similar to that great galaxy to which the earth belongs and which used to be considered the center of the visible universe.

He also believes these nebulae are distributed with considerable uniformity over an area that may be five hundred quintillion miles across.

The immensity of such a proposition is entirely beyond the comprehension of mind, and out of it all, science, far reaching as it is, has been unable to show anything of more importance than man.

So far as demonstrable, the influence of the stellar worlds, is favorable to the residence of man on earth. The seasons, vegetation, air and water are largely under the control of the planetary system of which we are a part.

The significance of man's relative position, as shown by all the works of organized society, business in all its forms, big business as well as that on a moderate scale, professional work, scientific research, and all kinds of productive industries, is evidence of his importance and positive proof that he is the sole beneficiary of all the surprising and magnificent resources of all the worlds.

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



He has but to develop and apply them to receive their physical, mental and moral benefit. They are his for the mere exertion of asking for them.

Each appropriation of that kind is forging a link in the chain of progress which will, we hope, lead far toward the ideal for which the medical world is striving but may never attain.

Such an ideal is a society of men and women who are morally upright, free from the vices, with love of truth and reverence for their Creator as their controlling motive, mentally well poised with normally functioning brains, physical organs without imperfection and a strength of character to act on their convictions.

This brief study of man's place in the Universe leads us to the inevitable conclusion that he is the one creature for the benefit of whom all else was made. Before reaching the high state of civilization to which reference has been made there are many difficulties to overcome.

From the beginning the records show that organized society has been retarded in its onward march and many times destroyed by war, famine, ignorance, superstition, disease and pestilence. War may be avoided by the wise counsel of sincerely honest statesmen acting on their convictions, superstition and ignorance prevented by education, but disease and pestilence have ever existed and must, and will, be controlled by prophylaxis and proper treatment administered by an intelligent and humane medical profession.

Consideration in a limited way, of the duties of the physician of the future and his relation to the public with the consequent effect on society, is the object of this effort. Just at this point it may be helpful to briefly consider the work of some of our predecessors. It has been distinctly shown that man's relative position in the world is of first importance. It will be seen by this review that both the physician and his work are the factors of greatest necessity to man's highest development.

Among all the early men there was a general belief in medical deities. The most ancient and renowned of the medical divinities was Isis, said to have been both the wife and sister of Osiris, for it was not at that time uncommon for brother and sister to wed. The divine honors of Isis were founded on the great medical skill she displayed in recalling to life her son Horus. If the legend be true, it will be seen that the practice of medicine by the female sex is by no means of modern origin.

Among other medical deities may be mentioned Imhotep, sometimes called the Egyptian Es-

culapius, whose temple was at Memphis. And so a careful study of history and tradition would show that a belief in the abilities and services of those who have devoted their lives to the healing and relief of the sick has always existed. Wherever men have lived in tribes or as a body there has always been a medical man who has more or less controlled the lives and customs of his people. Time will not allow more than a mere reference to some of the leaders since men have lived as organized bodies.

At any rate, you as students of medical history are familiar with most of them. Pacht, who was represented with the head of the cat, was regarded as the special deity of parturient women. Thout, or Taaout, who was represented with the head of a dog was said to be the inventor of the healing art and all other arts. To him was attributed the authorship of the oldest Egyptian medical works supposed to have been originally inscribed on pillars of stone.

At a later period the inscriptions were copied on papyrus and made a part of the so-called sacred "Hermetic Books". Probably all that remains of them now may be found in two papers, one at Leipzig and one at Berlin. The fact that they mention remedies for the treatment of each part of the body suggests there were specialists then as well as now.

The belief that both diseases and their remedies were controlled by deities necessarily caused priest and physician to be united. Temples of worship became chief places of resort for the sick. The names of four physicians who are represented as practicing medicine between 5,000 B. C. and 4,000 B. C. are preserved and are Teta, Tseshorta, Nebsuchet, and Chicii. Their political standing is indicated by the fact that two of them were kings. Even in those days surgeons are said to have made amputations, operated for stone in the bladder and cataract, etc.

Traces of early medical history are found among the ruins of buried cities, which point to a time corresponding with the period of greatest prosperity in Egypt and Assyria; about 6,000 B. C. to 1,000 B. C. They were left by a people called the Hellenes or Greeks. Like their contemporaries in Egypt, they assumed the existence of numerous deities both male and female to whom they attributed the control of all the affairs of life. According to Homer, Appollo was the ruler of Pestilence; Artemus the Goddess of Parturition; Pluto the ruler of Hades.

In China about 4,000 B. C. the ideas of medical men were rather fanciful. They attributed all diseases of an epidemic character to the in-

fluence of spirits, aided by cold or warm winds. In their pharmacology are included elephants bile, dried spiders, bugs, toads, and lizards. Probably such remedies were no worse than some of the armamentaria of today.

A summary of their ideas of anatomy and physiology is given by the historian Baas, as follows: They assumed the existence of six chief organs in which moisture is located. Heart, liver, two kidneys, spleen, and lungs. They enumerated 365 bones including eight for the male and six for the female cranium; twelve ribs in man and fourteen in woman.

Hippocrates, the first great medical authority, familiar to everyone, was born in the island of Cos about 460 B. C. With his work began the time of modern medicine. He is represented as the first physician to commit his views concerning diseases and their treatment to writing, thus founding modern medical literature.

He was the father of modern medicine and his influence is still felt for the good of the profession. Not so much in a purely technical way as in the moral and mental uplift of those who are familiar with his teachings. He established a new era in medicine. Many of his teachings are still, after 2,000 years, worthy of careful study.

In passing over the years since the time of Hippocrates, mention of a few of the noted men of their time whose names and works are familiar to you will emphasize the statement that physicians have always been and must of necessity be among the able and influential men in every community.

One of these men who made an indelible impression, not only on his community during his life but has influenced the world, was Galen, who lived about five hundred years after Hippocrates or in the second century A. D.

He was one of the notable characters whose influence will endure as long as history. He was a man of broad views and a writer on many subjects besides medicine. More distinctly than any previous writer he recognized the human body as the product of an intelligent Supreme or final First Cause by which all its parts were adjusted in harmony with a definite plan. His medical works were of such importance that they stood as the chief text-books all through the middle ages or more than 1,000 years. Perhaps that fact is of significance as indicating the slow progress or lack of progress in the early ages in the sciences.

The most valuable additions to knowledge made by Galen were in the departments of anatomy and physiology. Much of his information

was gained by the study of skeletons in the museum at Alexandria and in the dissection of animals. In many of his views he was a follower of Hippocrates. This was especially true in the direct treatment of the sick.

A more independent investigator and writer of that time was Dioscorides. One of his works on *Materia Medica* was used as a text-book more than 1,400 years. The time of Dioscorides and Galen was that during which the Christian religion, as proclaimed by Christ and his Apostles was being actively advocated in Palestine and in the Roman Empire.

The last of the Greek physicians who reached great distinction in medical history was Paul of Ægina. He lived in the sixth century, was educated at Alexandria and was a surgeon of note. One of his many innovations was in the use of the actual cautery. Many of his operations were similar to those of today.

The advance in surgery during the first six centuries of the Christian era was due largely to the almost constant wars of that period. The closing edict of Constantine in 335 A. D., of the Æsclepidæ which were for years the resorts for the sick, made it necessary to make other provisions. The monasteries controlled by the monks and priests were the natural substitutes. As care of the sick was one of the teachings of the author of Christianity, there was created in the minds of the female converts great zeal in support of charitable enterprises. So while Constantine was closing their resorts, his mother Helena, was devoting much time and means to the founding of a genuine hospital for the sick and poor in Jerusalem.

Medical history does not indicate there was any remarkable advancement or new discoveries in the medical world for many years after Galen's time. The writings of Hippocrates and Galen kept the influence of those able and distinguished characters predominant.

Anatomy and physiology appear to have made no progress until the fourteenth century, because there were no medical men with strength of character to overcome the obstacles and lead the public in the direction they should go. Both Christian and pagan regarded dissection of the human body as sacrilege.

The strong beacon light of the sixteenth century was Ambrose Pare. Born in France in 1510, he began his great work as an apprentice to a barber surgeon, from which humble position he rose to the leading surgical authority and was the intimate associate of kings. He attained his high place because his heart was in his work.



He was true to his early maxim which was "He who becomes a surgeon for the sake of money and not for the sake of knowledge will accomplish nothing".

Chemistry during the seventh and eighth centuries was so far developed that it became one of the medical sciences.

Thus it is seen that the past three centuries, fourteenth, fifteenth and sixteenth, have contributed several outstanding medical characters to the world, who laid the foundation for the development of some of the fundamental branches of modern medical science, human anatomy, physiology and biochemistry.

It may be said of them that they built the bridge which spans the chasm between the ages of ignorance, superstition, and blind following of false authority, and the more modern age of investigation controlled by common sense and reason.

The bright light of the seventeenth century, one that will shine for all time was William Harvey, who completely demonstrated the circulation of the blood. It is true the material for his lamp was prepared by the work of such men as Columbus, Servetus and others, but Harvey's work, coupled with the anatomy of Vesalius of the sixteenth century, has been a guide that has directed the way for much that has followed.

During the eighteenth century there were recorded the names of many men whose lamps of knowledge still light the paths leading to future developments and whose work is well known to all medical men. One of those was Edward Jenner of England, who may be said to be the father of modern prophylaxis.

Though it may not be generally known that direct inoculation with the virus of smallpox for the prevention of future attacks of the disease was practiced at least 1,000 years before the Christian Era, it was Jenner who discovered the preventive power of vaccination.

Another lamp whose name must not be overlooked, was John Hunter of the surgical world.

But it is the nineteenth century which stands preeminent among all the ages for furnishing material for directing the way along paths of medical and general scientific knowledge. The names of the men who have discovered and made available this material are legion. They are well known to all students.

Investigation, discovery and application of medical teachings has made a complete change in the daily life of all the people. No occupation or profession has escaped its influence. Probably the work of no one man has had a greater

effect for the welfare of the people than that of Louis Pasteur. His great discovery of living organisms, or bacteria, as the cause of all decomposition in animal and vegetable tissues, destroyed the theory of spontaneous generation and established a new era and the science of bacteriology.

It is to this science that preventive medicine owes its existence. Although the discovery of vaccination by Jenner was made before the development of bacteriology it is based on the same principle.

Had it not been for the existence of this principle the world would have been depopulated by war and pestilence ages ago. In those times the people who were infected mildly with many of the contagious diseases recovered and were thereafter immune. Today many of the diseases that were once national or world-wide scourges are easily preventable. While there were many able scientific men whose work prepared the way to some extent for him, it is due to the work of Louis Pasteur that prophylaxis is a success. He has lighted a great lamp which spreads beneficent rays all about us and will forever illuminate the pathway to the coming years, growing more brilliant with their passage.

While progress was slow in the early years, the accumulation of experience, with each forward step taken, opened the way for the next, until now the rate of progress may be likened to an arithmetical progression.

This rather hasty, incomplete consideration of the past has made it clear that true physicians have been the leading and indispensable element in the advancement of society. The history of the progress of medicine has ever been the index of the advancement of civilization.

We have now reached a point in the development of the medical sciences and their application to the welfare of humanity, where it will be well to consider what comes next. We must go forward or retrograde. The future is always ahead beckoning us onward for the accomplishment of greater and better things. The present is the moment of action and preparation for what is coming. The past alone endures and is the great storehouse from which we may draw material for our future building.

It is the belief of many that we are in a transition period in the practice of medicine. The many new discoveries of the past few years and new methods of the application of known principles have brought about a change in our professional status. Whether it is for progress or retrogression depends upon future adjustments.

The past records show gratifying results, the future promises only much more rapid advancement.

Mark Sullivan in a recent speech on "The Greatest Achievements of the Last Quarter of a Century", said, "The greatest progress during that period has been made by the science of medicine". When we compare the present, with conditions twenty-five years ago, we may readily realize the truth and fairness of Sullivan's statement.

We now have for our consideration, group medicine, industrial medicine, organized society interests, associations of the various charitable societies, periodic health examinations by insurance companies, the rapid development of community hospitals, the establishments of large clinics, and the division of our work into many unnecessary specialties.

This somewhat confusing state of affairs has been largely brought about by the rapid increase of knowledge along all lines of medical, as well as the general sciences. That we may analyze the conditions of the day and reach the proper conclusions, it will be necessary to refer to our great storehouse of information, the past.

In the light of the experience of the centuries that is there recorded, three points are made very clear. They are, that preventive medicine or prophylaxis will be the controlling influence in the practice of medicine in the future, while non-preventable diseases will demand attention from the broadminded general practitioner and skillful surgeon.

Preventive medicine without doubt, had its origin in the discovery and application of the principle of vaccination by Dr. Edward Jenner in 1796, though there were many discoveries and practices leading up to it. Dr. Jenner himself studied the subject more than twenty years before he applied it in treating a human subject.

But it remained for the real cause of the success of vaccination to be brought out and demonstrated by Louis Pasteur. In the decades between 1860 and 1880, it was plainly shown there was no so-called, spontaneous generation but that all decay and putrefaction in plants and animals was caused by living organisms. Reference has been made to the consequent establishment of the science of bacteriology.

The distinction due the eminent chemist, Pasteur, for his researches and demonstration of this great truth was duly recognized by the learned societies of the world. Upon the principles of bacteriology the foundation of preventive medicine is laid. The credit for the discovery of im-

munity to contagious disease and its application to their control is due to so many eminent investigators that it is impossible to give them all personal notice at this time. However true, prophylaxis includes more than the prevention of disease by inoculation. Methods of living, diet and preparation of foods have much to do with the preservation of health.

If the people are to live and make progress toward the ideal which has been set up it is very necessary that laws should be enacted, having as their objective the control of marriage between persons who are defective and who will almost surely transmit their own or similar defects. It is well known that such people produce larger families than the more desirable people. If such conditions continue the result cannot be in doubt; the control of our civilization will fall into incompetent hands.

Though it may not be practical until after a few years of educational work, the science of eugenics will in the future demand careful consideration. We spend almost untold sums for the purpose of improving the domestic animals of the country, but next to nothing for similar improvement of our own race.

Another important fact that greatly emphasizes the necessity of preventive medicine is the enormous cost of sickness, both direct and indirect. Some of the cities of Iowa have recently suffered from epidemics of smallpox. The great expense of caring for the sick added to the direct loss of wages of a large proportion of those in quarantine, beside diversion of business to some other city, could all have been avoided by the very trifling outlay necessary to enforce a general vaccination law. Montreal has just gone through a similar experience with typhoid which could have been avoided by the simple and safe plan of inoculation.

It is not necessary to mention the undoubted life-saving effect anti-typhoid inoculation had on the soldiers of the World War.

The exact figures are known to all. Another very impressive example is shown in the comparative results of the treatment of diphtheria before and since Behring's contribution to the world of his precious antitoxin. Many instances of even more striking results might be cited. No more convincing arguments than these are needed to show the value of prophylaxis. To carry the idea out to completion, it will be necessary to have the full cooperation of both state and national laws.

The economic phase of the subject is so extensive and so far-reaching that it cannot now be



taken up in detail. In a work entitled "A Half Century of Public Health", which is the American Public Health Association's Jubilee Historical Volume, it is stated, there are lost every year on account of illness 284,750,000 days, a large per cent of which is due to preventable sickness. Referring to Professor Irving Fisher's report to the National Conservation Committee appointed by President Roosevelt, it is estimated that three million persons are seriously ill at all times; 42 per cent of this illness was preventable with a resulting extension of life for fifteen years. It is stated by Iowa's very efficient health commissioner, Dr. Henry Albert, that estimates show that it costs each individual in Iowa \$19 for medical services one way or another each year. On such a basis, it is easy to figure the actual cost per year. This estimate does not consider direct loss of wages. It is certain that the preventable loss to the country is many millions of dollars. Enough is known to show that the country cannot afford to ignore the economic side of the subject of prophylaxis. To insure the best results along this line the aid of two important factors are necessary; the education and cooperation of the public. Such a movement will unite the various forms of health and charitable societies in a common effort for the benefit of their communities, thus avoiding a possible conflict of interests. When the people understand they will cooperate.

Dr. Wendell C. Phillips, in his address at the Dallas meeting last year, strongly recommended the teaching of the public by all the modern means at our command; the public press, the pulpit, the radio. Such work should be a prominent part of the county society program. The Journal of the A. M. A. has already entered the field through their editorial columns and the pages of Hygeia.

Enough is now known to warrant the medical world in supplying material to spread abroad. The general public, the press, the great organized industrial bodies are all demanding the information relating to prophylaxis which only the profession can furnish. It has always been the desire of organized medicine to supply the world with the knowledge sought for. The public are more nearly ready to receive it than ever before. There can be no better method of protecting the people from quackery and commercialized pretensions than by such an education. It seems then that direct prevention of disease and modification of the unfavorable conditions which lead to the development of morbidity, demand the attention of the profession in the immediate future.

Such change will in no manner detract from the importance of the general practitioner but on the contrary will add greatly to his duties and responsibilities. Specialism should not dominate in any community but occupy an advisory position.

It now appears that the physicians of the future will require a thorough knowledge of the principles of prophylaxis and their application in the prevention of disease. They must be skillful in surgery to a greater degree than ever, but above all they will be competent diagnosticians and general practitioners. Specialists or those who limit their work to certain lines will occupy the same important position they now hold. Dr. Frank Billings and other leading authorities have estimated that 80 per cent of all diseases are properly diagnosed and treated by the general practitioner. The other unusual cases require the advice and assistance of one who has thoroughly informed himself along special lines.

The preparation of an individual for the privilege of rendering humanity a service of such magnificence should be given very careful consideration. If the man who deals with affairs of daily business falls short, only inconvenience results, but failure of a physician to meet requirements may be disastrous to a life or its usefulness.

However the subject of medical education is in the hands of a commission organized by the Association of Medical Colleges and representatives of general education, the basic sciences and other interested bodies, the membership of which is composed of well known men of good judgment and wide experience. One of the leading spirits of that competent body is our own Dr. Walter L. Bierring. He is so well known to the medical world that comment is unnecessary. I simply want to state that if the general membership possesses the same exceptionally high character and marked ability as Dr. Bierring, we may be assured the subject will receive the deserved attention.

The inherent qualifications and actuating motives of the young man who desires to claim the honored title of physician or doctor of medicine are worthy of attention.

From medical history we learn that the most precious thing in the universe is man, and his most valuable asset is good health, without which all else is naught. We also find that disease has caused more untimely deaths than all the wars of the world. From the earliest times the best men have devoted their lives to the medical service of mankind. Then he who would enter the profession should fully comprehend the nature of

the grave responsibilities he must assume and understand the serious duties that confront him.

Such a man should be possessed of a solid background of inherited common sense, common honesty and good judgment. Without these qualities he should not pass. Common sense and common honesty are especially necessary, because they are indispensable and rather rare.

Such a man should be actuated by a sincere desire to be of service to his fellow man without the hope of commensurate material reward. He must remember "The world does not owe me a living, I owe the world a life".

He must possess the spirit of brotherly love.

He must have an inborn reverence for his Creator and the fundamental truths of nature.

He must have a true love for all scientific knowledge.

He must have respect for natural laws as well as the laws of his country.

Possessing such qualifications he must receive the sort of training to which reference has been made. A man of the kind just described will not make financial considerations his chief aim, but the material reward will be incidental.

I wish I might paint a word picture of the physician of the future or describe him in language that would convey to the mind the ideal man. The doctor of the future will be a leader not only in his profession but in the daily life of the organized society of which he is a part. He will be a teacher of all the virtues, physical, mental, and moral. He will be an advisor in economic as well as social matters.

The doctor owes it to the community which he serves and from which he receives his compensation to take an active part in the political affairs of the people. No one better understands the questions of the day and the needs of the public than he does. The sanitary affairs of the community and of the state should be controlled by the medical profession instead of being political trading material as at present in many states. It is an admitted fact that a very large per cent of the people do not take the interest in the public questions that they should to bring about the best results for the community, nor for the country in general. Many of them give so little thought to even the existence of a government that they do not realize the benefits they daily enjoy but simply accept without knowing whence they came. Such persons are easily misled by scheming and dishonest politicians. The public duty of the physician as a part of his community is very clear.

A few words of instruction and information from him will often remove doubts and change

the situation. When selected so to do, it is a public duty to accept political position. Men who possess the qualities of leadership and mental training with consequent influence among men in public life are much needed in our legislative bodies. Many of the great medical characters of history have been glad to thus contribute to the general welfare.

Dr. W. Moore Thompson, in the Illinois Medical Journal, refers to a number of such men. Mention may be made of a celebrated Portuguese physician of the thirteenth century, Petrus Hispanus, who occupied the Pope's chair and was known as Pope John XXI. Roger Williams was successful in treating a pestilence among the Indians. Dr. Joseph Warren in Revolutionary times was active in arousing the spirit of liberty. He it was who sent Paul Revere on his world famous ride through Arlington, Concord and Lexington. Dr. Warren later became a major general and lost his life at Bunker Hill. During the French Revolution, Dr. Guillotine's name became attached to that dreadful machine which added greatly to the terrors of that war. Coming down to more recent times, there is Dr. Georges Clemenceau who served France so well as Prime Minister during the World War. He practiced medicine in New York and in Paris. Dr. Leonard Wood, governor general of the Philippines was in private practice before entering the army. He was candidate for the presidency a few years ago. He later accepted the office of Provost of the University of Pennsylvania but afterward resigned. It will be seen by these references that the way to success in all public service is open.

In summarizing I have endeavored to call attention to man's relative position in the Universe as of first importance. In all ages and societies medical men have been prominent leaders, often guiding the advancement of the people. The history of the progress of medicine has been the index of general progress.

Rapid development of medical science has opened the way for a brilliant medical future. The physician of the future will occupy a more influential and useful position than ever before.

---

#### CARE OF PULLMAN CAR COMPANY IN SELECTING PORTERS

---

Before a negro is taken into the service of the Pullman Car Company as a porter he must be vaccinated or show evidence of a recent successful vaccination. If the scar of a vaccination is older than five years, at least one attempt at revaccination is required. Applicants, also, must be examined as to physical fitness.



## CARDIAC CLINIC\*

PAUL DUDLEY WHITE, M.D., Boston

Assisted by

Merrill M. Myers, M.D., Des Moines  
Chairman of Clinic

There are many different causes of heart disease, but we shall attempt to cover only the most important etiological factors by presenting one example of each kind. There are here this morning four patients who represent very well different types of cardiac disease. It is most important to analyze patients with heart disease according to the cause. In the past few years we have heard much about the great value of this method of study. In the old days we considered simply the physical signs for the diagnosis of structural damage. Later, as a result of the teachings of Mackenzie, Lewis and others, we considered with greater care the matter of functional disturbances of the heart, through the study of abnormal rhythm, of angina pectoris, and so on, and of late years we have realized the importance of studying the causes of heart disease. We certainly cannot prevent heart disease unless we know something about the causes. Therefore both for our own sakes, for our patients, and for the future effectiveness of our campaign against heart disease we should attempt in every instance to diagnose the etiological type of heart disease, at the same time, of course, not neglecting structural change or functional disturbances. It is sometimes only on the basis of the structural changes or functional disturbances that we can make an etiological diagnosis.

## I. RHEUMATIC HEART DISEASE

The first patient to be presented is one illustrating rheumatic heart disease. In New England and some other parts of this country and also in certain foreign countries rheumatic heart disease is one of the very important types. It attacks children and young adults so frequently that it probably attracts our attention much more in hospital clinics than do some of the causes of heart disease that are less dramatic. In some parts of the world rheumatic heart disease is uncommon. We do not know the incidence of rheumatic heart disease in Iowa as yet but statistics are being gathered. In New England there is a difference in the incidence of the various types of heart disease between the statistics in hospital practice and those obtained in private practice; that is, in the hospital class of pa-

tients rheumatic heart disease is very common, in private practice it is less common; there is about twice the percentage in hospital statistics as in private practice. This probably is true the world over. A few years ago we made a study of the incidence of rheumatic heart disease, in part by writing to the chief hospitals of the world and to prominent internists who are especially interested in cardiovascular disease, and we found that not only are climatic conditions of great importance in the incidence of this type of heart disease, but also the social status to a certain extent influences the percentages. Wherever we see a great many patients who have rheumatic heart disease, the condition is much more frequent among the poorer people. At the Massachusetts General Hospital, about 51 per cent of patients in a study of 1,000 consecutive cases of cardiac conditions were found to have "rheumatic" heart disease;<sup>1</sup> that is, one-half the patients in this series. In the South the incidence is much less. In Virginia it probably is only half as frequent as in Massachusetts, and we have been informed that in the states farther south it is much rarer than in Virginia. It is necessary for us throughout this country and the world to gather more accurate data with regard to the various types of heart disease, not confining our observations to the presence of pathology alone. Structural changes, which are important, are not so important in this study as are the etiologic type. Therefore we should ask that statistics bearing on this question be compiled as accurately as possible, to the end that we may be able to compare the figures representing the incidence of the different causes of heart diseases throughout the world.

## Case 1

G. C., aged twenty-one years. Cash girl in department store. Chief complaints are shortness of breath, palpitation and precordial pain.

**History** (September, 1925). Onset and course: No history of illness of any consequence except for a severe attack of tonsillitis in 1915 until 1920 (age fifteen) at which time she had a severe attack of rheumatic fever. She was not informed that her heart was involved at the time of rheumatic fever, but symptoms of which she complains have been present to a greater or less degree since. Dyspnea has been more or less marked though there are times when it is present only to a slight degree. It is noted as she walks rapidly on the level. Palpita-

1. Non-luetic valvular disease in young people has been of late called "rheumatic" whether or not there has been a history of rheumatic fever or chorea. There may be exceptions to the rheumatic etiology (rare "septic" endocarditis) but there seems at present at least little doubt but that the great majority of cases of acquired valvular disease in youth are of the rheumatic etiology even though the original infection is not always very obvious. Further study of this group is needed.

\*Presented before the Seventy-Fifth Annual Session, Iowa State Medical Society, Des Moines, Iowa, May 12, 13, 14, 1926.

tion of the heart has been present inconstantly and she has noted that there have been occasional attacks of sudden onset and offset during which the heart would beat quite rapidly and regularly. Precordial pain has been present only a short time and it is of mild degree, never to the extent that it would suggest the pain of pericarditis. For the past three years she has been quite comfortable with only slight shortness of breath on exertion and slight distress in the region of the heart. She has been working quite regularly as a cash girl in recent months. The tonsils have been removed and there is a small amount of tonsillar tissue remaining which does not appear to be infected.

**Heart:** (September, 1925.) The apex impulse is in the fifth interspace 9 cm. from the mid-sternal line. Impulse is diffuse and forcible. There is an apical presystolic thrill which is not constantly present. There is no demonstrable increase in the size of the great vessels by percussion. On auscultation at the apex one hears a markedly accentuated first sound. A distinct rough "presystolic" murmur, moderately long, blowing systolic murmur, a soft high pitched early diastolic murmur occurring immediately after the second sound and a distinct low pitched, rumbling, mid-diastolic murmur are heard at the apex. The second sound at the apex is quite faint. There is no pericardial friction rub. At the left of the sternum in the second and third interspaces one hears the mid-diastolic and presystolic murmurs quite faintly, and a short soft systolic murmur and a distinct high pitched moderately long diastolic over the second right interspace are also audible.

Blood-pressure: 120 mm. mercury systolic and 70 diastolic.

(May, 1926.) During the last year the patient has been working quite regularly as a cash girl in a department store and has been in fair general condition. She has been taking sodium salicylate grains 20 to 30 daily, with rest intervals. About six weeks ago while sitting in church she was taken with a sudden rapid irregular heart action, which was very distressing. Dr. Myers saw her about forty-eight hours later. The patient's report was that the irregularity and tachycardia had been continually present since the onset. When Dr. Myers saw her the heart rate was 180 and absolutely irregular. She had a slight amount of upper abdominal distress but had no breathing difficulty or edema. There was slight cyanosis of the lips. The heart findings were about as on previous examinations. She was given 6 grains of digitalis leaf that evening and 2 grains the next morning. Twelve hours later the heart action was 86, still irregular. Dr. Myers considered the use of quinidine but felt that with the extensive cardiac damage it was not wise to use it. Since that time she has been fairly comfortable and the heart rate has remained about normal on daily rationing of digitalis. (End of history.)

We believe that every attack of rheumatic fever involves the heart. It may not produce deformity of the valves, and we are apt therefore to congratulate ourselves and the patient on the fact that the valves are not involved. But as we give more intensive study to this condition we are beginning to realize that there is probably some affection of the heart in every case of rheumatic fever, often with resulting deformity of the valves. Therefore we usually call the condition "valvular disease".

The shortness of breath, rapid heart action, and so on, may not be due to the mitral disease that is present, but may be due to the nervous condition of the patient. We are sometimes able to elicit or note the symptoms of dizziness, tremor, and trembling, obviously due to nervousness of the patient, and also we have their own acknowledgment of their nervous state. The patient who comes to us complaining of fainting attacks, dizziness and trembling, probably has effort syndrome as a basis for the trouble rather than heart disease. These symptoms may coexist however with rheumatic heart disease. The history of sudden attacks of tachycardia is frequently found in rheumatic heart disease with mitral stenosis, but such attacks may be found without any heart disease at all. When we have a patient with paroxysmal tachycardia the chances are at least two to one that no heart disease will be found.

*Examination of Patient*—This patient shows very slight congestive failure today. There is slight pitting in dependent parts of the body and a little engorgement of the liver. When lying down she is a little more comfortable with her head somewhat elevated, or higher than she formerly was in the habit of having it. There is nothing remarkable about the blood. There is no fever but we must always think of the possibility of infection. In spite of control of the ventricular rate in auricular fibrillation by digitalis we have not restored perfect compensation. Whether or not quinidin will be effective we do not know. This agent is not very satisfactory in the treatment of such patients because of the frequent relapses. There is some slight risk in the use of quinidin sulphate, but we know that in some cases normal rhythm can be restored with quinidin without danger. She shows a very slight mitral facies, not very characteristic, a little sallowness of the skin probably coming from hepatic congestion; the greater the congestion of the liver the more the jaundice. There is slight congestive failure with auricular fibrillation. The heart is enlarged



and shows the murmurs of mitral stenosis and of aortic regurgitation.

The electrocardiogram shows a previous normal sinus rhythm with a ventricular rate of 80 per minute and a definite left ventricular preponderance.

The x-ray reveals a large heart. You see that the left border of the heart shadow is convex, a finding which is frequent in the rheumatic heart due to the enlargement of the left auricle or right ventricle (infundibulum). This and the succeeding x-ray films we shall show are all taken with the patients at least six feet from the tube, for only by this method can one make accurate measurements to determine heart size. Measurements on this film give a cardiothoracic ratio of 66 per cent plus. This ratio is secured by comparing the total transverse diameter of the heart with the total internal diameter of the chest.

Recently attempts have been made to relieve the burden of the right ventricle in mitral stenosis. In Boston four or five cases have been operated on. The first case is still living but was not much improved by the procedure. In the other cases death occurred following the operation. The risk seems to be too great to go ahead with such a procedure. We saw one operation done by Dr. Elliott Cutler, then in Boston, and we cannot imagine an operation more skillfully done; unfortunately the patient developed pneumonia a week later and died.

Rheumatic heart disease has a family incidence, suggesting in addition to the effect of climate at least two other factors and possibly three: first, crowding in the poorer districts of the cities; second, communicability of the disease; and, third, family susceptibility. Probably all of these factors play a part. We believe that to a certain extent rheumatic fever is communicable.

The prognosis in this case is bad. Here is this patient with a well controlled ventricular rate in fibrillation, and still she has congestive failure which causes us to feel that she has not a very long time ahead of her. We may by pushing digitalis a little more or by using quinidin restore satisfactory function for a while only.

#### DIAGNOSIS

1. *Etiologic*—Rheumatic heart disease.
2. *Structural*—Mitral and aortic endocarditis (chronic).
3. *Functional*—Auricular fibrillation. Congestive failure.

(History) **Subsequent History** (Case No. 1): Patient's condition grew progressively worse. Edema,

orthopnea, cyanosis and other evidence of congestive failure became more pronounced, this in spite of the fact that the heart rate remained approximately normal. She died June 8, 1926, about two months after her fibrillation developed.

Dr. Julius Weingart performed an autopsy and a summary of his report is as follows: "The pericardium contains about 150 c.c. of clear straw-colored fluid. The parietal and visceral layers are smooth and shining. On the latter are a great number of small petechial areas.

"The heart weighs 450 grams. The right auricle and ventricle are dilated. The pulmonary and tricuspid valves show no vegetations or deformities. The left ventricle is of normal size. No definite hypertrophy of the wall can be made out.

"The mitral valve is deformed and stenosed. A few very small vegetations are present on its edges. The left auricular appendage is filled by a blood clot which is adherent to the endocardium over an area about 1 cm. in diameter. The orifice of the mitral valve barely admits the tip of the little finger.

"The aortic valve is deformed and stenosed. The orifice here also barely admits the tip of the little finger. The valve cusps are very stiff, so that they have evidently failed to prevent regurgitation. The aorta itself shows a smooth and glistening intima, and its wall is apparently normal.

"The liver is somewhat enlarged. It presents on its outer surface the typical granular appearance of the 'nutmeg' liver. Sections show a very marked passive congestion, with yellow mottling. The picture is that of passive congestion in a very marked degree. The blood-vessels are much dilated, two-thirds normal size.

"The spleen is of normal size. It shows a slight difference in form from the normal spleen, in that a part of it projects outwards near the hilus. This is only a congenital peculiarity in configuration. The cut surface is very dark, and no normal markings can be made out. The findings are those of passive congestion.

"The kidneys show a granular, congested cortex.

"No infarcts found in any of these organs."

A study of the course of the disease in this patient brings out certain valuable points in the life history of rheumatic heart disease.

## II. LUETIC AORTITIS

### Case 2

R. W., aged forty, porter; married, no children. Complaints: Shortness of breath; attacks of nocturnal dyspnea; chest discomfort.

**History.** Onset and course: The present illness first began two years ago; previous to that time there had been no symptoms referable to the heart. Shortness of breath on exertion (climbing steps) began and continued to grow worse. He was working regularly until he went to the hospital. There was no swelling of the limbs. In the last six or eight months he has had attacks at night in which he has had difficulty in getting his breath; he would be

awakened out of a sound sleep and have to get up in order to get his breath. On getting up his heart would be felt beating very rapidly. These attacks occurred every night until he went to the hospital. There has been some discomfort in the chest which began about the same time as the shortness of breath. There is a heaviness across the chest which came on only with exertion. There is no pain anywhere in the body. He has no symptoms while at rest. In the last two or three days he has noticed forcible beating of the heart but no irregularity. He was seen at the Des Moines Health Center about the middle of March, 1926, and was referred to the City Hospital where he remained about a month. The symptoms improved a good deal while in the hospital and he left about the 18th of April feeling considerably better. He has very little if any dyspnea now, but he does have some attacks of difficulty in getting his breath. Recently he has had a moderate amount of coughing when lying down, with slight expectoration.

**Past History:** No rheumatism or joint trouble in any form at any time during his life. No chorea, tonsillitis or scarlet fever. No illnesses except smallpox in 1919. No operations.

Denies venereal infection.

**Examination:** The patient shows no gross evidence of myocardial weakness. There is a definite puffiness under each eye and a marked pulsation of the arteries of the neck.

**Head:** Teeth diseased. Throat negative. Pupils negative except that they react rather sluggishly to light. Neck negative except for pulsation noted above.

**Lungs:** Negative.

**Heart:** There is a definitely increased pulsation of the heart. This is visible in the apex region and also in the second and third interspaces to the right of the sternum; a slight diastolic impulse is felt over this region. No thrills are detected. There is a long blowing diastolic murmur heard best along the left border of the sternum.

#### Percussion Borders—from Midsternum:

	R. Space		Space L.
Visible and palpable impulse	1..... 4 cm.	2 cm.....	1
	{ 2..... 5.5 cm.	3 cm.....	2
	{ 3..... 5 cm.	4.5 cm.....	3
	4..... 4 cm.	8 cm.....	4
		10.5 cm.....	5
		11 cm.....	6

There is a Corrigan type of pulse. Rate 80.

Blood-Pressure: 140 mm. mercury systolic and 60 diastolic, both arms.

Abdomen negative; reflexes normal; no edema of the extremities. Wassermann + + + +.

His electrocardiogram shows a ventricular rate of about 100 per minute. In Lead I you see a break in the rhythm due to a premature ventricular contraction in which the impulse passed through the muscle in an abnormal manner. Except for this point the rhythm is normal. The inversion of the

T waves in Leads I and II suggest myocardial impairment. A mild degree of auriculo-ventricular heart block is present as shown by the P—R interval which is lengthened to about six twenty-fifths of a second. This tracing also shows a left ventricular preponderance. If one were to see only the electrocardiogram of this patient he would diagnose myocardial impairment.

This is an interesting x-ray film. See the wide shadow at the base of the heart measuring 11.4 cms. The cardiothoracic ratio here is 68 per cent. The heart is very large.

This patient shows an important but not common type of heart disease: luetic aortitis with involvement of the aortic valve and definite enlargement of the heart. This condition is much rarer than rheumatic heart disease in New England; at the Massachusetts General Hospital the latter figured in 51 per cent of the patients, whereas luetic aortitis figured in only 4 per cent of the cases of heart disease. Of course in some parts of the world luetic heart involvement is more common, especially in certain sections of the South. Because of the gravity of this condition it is always an important type of heart disease and we must make the diagnosis as early as possible, when our treatment may produce results. On examining the patient we see here the marked precordial pulsation, also the slight pulsation that occurs in the second right interspace which is due to enlargement of the aorta. There is general and diffuse aortic enlargement. He has some enlargement of the vessels in the neck and some dyspnea. The heart is very large; it probably would weigh approximately 780 grams.

The prognosis in this case is bad. There is marked enlargement of the heart. The patient has symptoms that are not as marked as his signs; nevertheless the story of these patients is that cardiac failure and death will follow in less than a year or two after eliciting such findings as we have in this case. In spite of the bad prognosis, this patient should be given whatever advantage he may derive from arsenic (intravenously with care), mercury, and potassium iodide. The gravity of the disease justifies this risk.

(History) **Subsequent History:** The patient grew progressively worse and died in July, 1926. No post-mortem was held.

### III. CHRONIC HYPERTENSIVE HEART DISEASE

#### Case 3

Mrs. L. M. T., aged fifty-three years, married, stenographer. Complaint: No symptoms at present. History of high blood-pressure.



**History.** Onset and course. No severe illnesses. She had "pelvic trouble" with laparotomy twelve years ago with drainage for three months. This was due to a ruptured appendix she says. Tubes and ovaries were removed. Blood-pressure was then 108 to 110 mm. mercury systolic. She has had good health since up to five years ago when she had an occasional expectoration of bloody frothy sputum. No dyspnea or orthopnea. She sleeps well. No edema exists. No pain or distress occurs in the chest. She was told the first time, January 3, 1923, that the blood-pressure had increased and was then 180. Since then it has been 210, 215, to 200 systolic and 120 to 130 diastolic. There was a copious nose bleed January, 1923, but none since. Dr. Simmons three weeks ago reported the following laboratory results: Renal function (red) test appearance: time 10 minutes; first hour 30 per cent; second hour 25 per cent; total 55 per cent. Blood urea nitrogen 10 mg. per 100 c.c. blood. Urine: sp. gr. 1010; albumin trace, no sugar, no casts. Urine: (Dr. Myers' office), amber, clear, alkaline, 1004 albumin none, sugar none. Negative for casts or other abnormal sediment.

Chest: Lungs negative. No pleurisy. No cough or expectoration except as above noted.

Physical Examination: Well developed and nourished. No cyanosis. No cough. Mucous membranes of good color. Chest expansion normal. Lungs normal.

Heart: Moderate enlargement. No murmurs. No reduplication of sounds. Aortic second sound triple plus. Blood-pressure 260 to 240 systolic and 150 to 140 diastolic.

No edema over shins.

Impression: Hypertensive heart disease, essential hypertension, without demonstrable kidney damage. Moderate cardiac enlargement—hypertension (260 systolic and 150 diastolic). No evidence of myocardial incompetency or of the anginal type of failure.

The electrocardiogram shows a rate of 70 to 80 per minute. The rhythm is normal and there is no heart block but some left ventricular preponderance.

Her x-ray film shows a moderate widening of the great vessels, measuring 6.3 cm. The heart is enlarged with a cardiothoracic ratio of 59 per cent.

The patient was advised to go on a low salt and protein diet with a period of rest. She was given potassium iodid and nitroglycerin as necessary. She had three defective teeth extracted and within a few months had reduced her weight to 118 pounds. There have been occasional attacks of cold in the chest. Occasional attacks of epistaxis have occurred with no special heart symptoms at any time, but in June, 1923, she had a short period of slight mental confusion which interfered for a few hours with her work; it quickly cleared up.

Several urinalyses at the office have never revealed albumin, though occasionally some hyaline casts were noted, though no red blood cells. The specific gravity has been below 1020 in all these specimens.

Phthalein Test—Dr. Simmons, May 10, 1926: First hour 40 per cent; second hour 20 per cent; total 60 per cent.

Blood urea: Sixteen mgms. per 100 c.c. blood.

Urine: Lemon color, clear, neutral, 1010. No albumin or sugar. Negative for pus, blood or casts.

Sometimes patients with chronic hypertension will show enlargement or marked pulsation just above the clavicle on the right, seemingly due to an aneurysm but really due to tension and enlargement of the innominate and carotid arteries. This patient has very few symptoms.

In a case of hypertension the prognosis is uncertain, but eventually if the blood-pressure stays up and arteriosclerosis sets in we may have a cerebral accident, cardiac failure or renal insufficiency. Those are the three end results in such cases. Some of these patients spontaneously recover and apparently do as well without special treatment as with treatment. We should avoid fatigue because the heart is already under strain. In Boston we have had no success at all with liver extract; there was no reduction in blood-pressure in a considerable number of cases; just how much liver function has to do with high blood-pressure we do not know. The avoidance of fatigue and a moderate diet without extreme starvation are advisable. Treatment of hypertension with nitrites has been disappointing. The pressure may fall but it rises rapidly again. As to digitalis, this patient has not had signs showing the need of it; we would not use this agent unless she shows signs of failure.

(History) **Subsequent History** (Case III): On September 5, 1926, patient had a stroke during which she lost the function of the entire right side, including speech. There has been a gradual improvement, however, and at the present time she walks with but slight difficulty, though the right arm shows moderate weakness and the speech is still moderately disturbed.

#### IV. CORONARY SCLEROSIS

##### Case 4

Mr. G. Z. B., aged forty-three, married. November 29, 1925. No complaint at present.

**History.** Onset and Course: He never had any symptoms referable to the heart until about two years ago. While in New York there was a gradually developing dyspnea on exertion which continued for about six months and was noted rather definitely after such exertion as stair climbing and rapid walking. He reported no swelling of the ankles at that time. August 26, 1925, while at Davenport, Iowa, eating breakfast he was taken with a substernal heaviness and pressure which was continuous and which became a definite heavy pain. There was no radiation of the pain, it being entirely

substernal; it lasted for three or four minutes, after which he finished his breakfast. The pain entirely stopped and he walked to an office about ten minutes after this; while there he was taken with a recurrence of this substernal distress of a similar character but in addition there was a radiation to the inner side of the left arm. There was little if any precordial discomfort. He broke out into a heavy sweat and was considerably weakened. He was taken to his hotel, the pain persisting; Dr. Marker was immediately called and administered amyl nitrite which relieved his discomfort but did not entirely stop it. About an hour later it was necessary to administer amyl nitrite again because of an increase of the pain and again the pain was relieved somewhat although not entirely dispelled. He states that he had no pain after about one o'clock p. m. on this day. He was taken to the hospital at four p. m. and was feeling quite comfortable at this time. The next day his condition was fair and he does not recall any special symptoms, though it is noted from Dr. Marker's letter that the patient developed a fever and a leucocytosis of 22,000 on this day. Urinalysis revealed albumin and casts and he developed rales in the chest posteriorly, present in both lungs but more noticeable on the left side. These rales seemed to be largely in the base of the lungs.

On the following day (August 28) patient states that he was nauseated most of the day and vomited a great deal, and, though he does not recall it, it is probable from Dr. Marker's report that he still had some fever.

August 30, 1925. He states that he was for the first time aware of fever, 103°, that he felt quite hot and that there were a few slight chills.

He remained in the hospital about two weeks and so far as he can recall took no medicine except the amyl nitrite and nitroglycerin until after being in the hospital about a week when digitalis administration was begun. He left the hospital in fairly good condition at the end of two weeks still taking digitalis from six to ten drops per day. He then went to Clear Lake where Dr. Wurtzer kept him in bed for two and one-half weeks. During this time he felt well and shortly after getting up he noticed some irregularity of his heart which was probably of the premature beat variety. Because of this Dr. Wurtzer put him to bed again for three weeks. He then gradually assumed more activity and during this time of convalescence he had five teeth extracted.

He came to Des Moines on Thanksgiving day, 1925. At that time he had no symptoms referable to his heart. He was not taking any medicine then. Physical Examination: Patient looked well and there was no gross evidence of heart or other disease.

He has been seen on a few occasions since the original visit and there has been very little noted in the examinations which differs from the original. On April 28th he was seen at Dr. Myers' office and

reported that he had been feeling well and working regularly until about two weeks previous to this time, and that in the last two weeks he had noted more of the intermissions of the heart beat and a dull heavy feeling with slight tenderness in the lower substernal region extending to the left upper anterior chest. There is no radiation of this discomfort to the arms and it does not seem to be related to exertion. It is not a continual distress. Except for these symptoms there is nothing of importance. (End of history.)

**Heart:** Impulse is in the fifth interspace and normal in appearance. The point of maximum intensity is 10 cms. to the left and the left heart border to percussion is approximately 10½ cms. No other abnormalities are found on percussion. There is a short soft apical systolic murmur, but nothing else. Blood-pressure 125 mm. mercury systolic and 80 diastolic.

**Impression:** This is probably an attack of coronary occlusion though it is not typical in all respects. The recovery seems to be quite satisfactory up to the present time. Physical examination is essentially negative. His condition seems to be sufficiently good so that he has been advised to go back to work part time. He will be given potassium iodid routinely, but also amyl nitrite to use if he has pain.

**Urinalysis:** Color amber; transparency clear; reaction acid; sp. gr. 1016; no albumin or sugar. Microscopic examination completely negative.

**Blood Wassermann** negative.

The electrocardiogram shows a ventricular rate of about 100 and a normal sinus rhythm. Only Leads I and II are shown. The T wave in Lead II is inverted, a condition quite frequently found in patients who have had coronary occlusion. It is not a digitalis effect in this case.

The x-ray shows the heart and great vessels normal in size and shape, the cardiothoracic ratio being less than 50 per cent.

Many patients with a history somewhat like that of this case have had angina pectoris first; then comes a severe prolonged attack of substernal pain followed by fever, undoubtedly the result of infarction of the heart. This patient probably has coronary occlusion. One might say that the pain was that of angina pectoris, although anginal pain lasts usually but a few minutes. One might say that his fever was due to infection, but it looks as if he had had coronary thrombosis. This does not mean that he will die right away, or that he will not perhaps die of some other condition. In Philadelphia we reported a group of sixty-four of these cases with thirty of the patients still alive. The average duration of life in the thirty-four patients that died was fifteen and one-half months. The average duration of life in those still living is over two years. Therefore we can see that the duration



of life will be raised. In other words, we may be able to hold out hope in these cases, but it is essential to treat them properly; rest is most important—complete rest for many days. Rest in bed for two or three weeks is absolutely the minimum for a slight attack and longer for a severe attack. In the case of the patient that we have seen with the longest interval since the typical attack as described by patient and doctor, the duration of life has been eleven years and the patient still in fair condition at seventy-three years of age. Other patients have lived for over five years, some three, and so on. We shall continue to study the series.

Angina pectoris has a better prognosis, although, of course, in these cases we may have coronary occlusion as a complication. In our series of 200 cases of angina pectoris, one-third of the patients have died and two-thirds are still living. Today the average duration of life in this group of 200 cases is five and one-quarter years, which means that the prognosis is not bad at all in angina pectoris. Some patients live twenty years or more after the initial attack of angina pectoris. In a case of angina pectoris the more nervous the individual and the greater the nervous strain which preceded the attack, the better the prognosis if the nervous strain can be controlled.

The operation of sympathectomy has been disappointing in our hands and should not be advised freely until we know more about it. Rest is more important than such a measure as that. Nitrites are simply of temporary importance. We have used theobromine and euphylline in angina pectoris without any particularly good results. We do know that sometimes operations, for example to repair certain difficulties, are credited with causing improvement in a patient with heart failure or angina pectoris, when as a matter of fact it is the rest resulting from the necessity of staying in bed after operation that is responsible for the relief of symptoms.

The prognosis in the case before us is reasonably good if the patient takes care of himself.

(History) **Subsequent Report:** The patient followed his occupation as a traveling salesman regularly until about November 1, 1926. On that day, without warning, he was taken with a sudden severe pain in the left front chest. There was no radiation of the pain and it subsided completely in about one minute. He was in bed one week, then returned gradually to his work and now continues it, having had no recurrence of the pain. He is, of course, "taking it easy" at his work.

## THE EARLY DIAGNOSIS AND TREATMENT OF CANCER OF THE UTERUS\*

REUBEN PETERSON, M.D., F.A.C.S., Ann Arbor, Michigan

Professor Obstetrics and Gynecology, University of Michigan

No greater problem confronts the public and especially the medical profession than that of cancer. We cannot shut our eyes to the fact that the disease is on the increase not only in this country but in all civilized countries from which reliable data can be secured. If one questions this statement on the ground that statistics can prove anything, that they are unreliable even when made by workers without bias, we have the evidence furnished by our own professional experience. We meet with and recognize more cancers of every part of the body today among our patients, not because we are specialists or that as general practitioners we have a larger clientele, but because there are actually more of our patients afflicted with cancer. Each year more of our friends, neighbors and acquaintances die of the disease. At times when there is an unusual number of cancer deaths in people of prominence in our communities, our patients become panic stricken and come to us for examination and advice. Yet the scare soon passes and the public pursues the even tenor of its way and contributes its money to fight some disease claiming fewer victims than does cancer.

Dr. J. W. Schereschewsky, studying the cancer mortality in the ten original registration states from 1900 to 1920, concludes as follows:

1. There has been a pronounced increase in observed death rates from cancer in persons forty years and over in that part of the United States known as the ten original registration states.

2. Part of this increase, about 30 per cent is due to greater precision and accuracy in the filling out of death returns.

3. The remainder, however, is an actual increase in the mortality resulting in a death rate between 25 and 30 per cent higher than it was twenty years ago.

In 1900 the death rate from cancer in this registration area in the United States was 63.0 per 100,000 population. In 1924 the rate was 91.9, an increase in twenty-four years of 28.9 per 100,000 of population, or 45.9 per cent.

These figures, which are reliable, show that cancer is increasing in this country, while the

\*Address delivered at the Sixteenth Annual Clinic of the College of Medicine, State University of Iowa, April 20, 1927.

tuberculosis rate declined between 1900 to 1922 from 182 to 86 per 100,000. The mortality rate for most of the other important diseases we meet with in our routine work declined over this same period, with the exception of cancer.

Iowa became one of the registration states rather recently. Cancer death returns from Iowa for the years 1923 to 1925 inclusive, were as follows: 1923, 2391; 1924, 2402; 1925, 2507; total, 7300.

There has been a steady increase of cancer deaths during these three years in spite of there having been no increase in population during the same period. The death rate from cancer in Iowa for 1924 was 99.3 per 100,000 population, in 1925, 103, an increase of 3.7 in a single year. So far as figures go, this is three times as rapid an increase as in the country at large during the twenty-four years mentioned previously, when the average yearly cancer death rate increase was 1.2.

Looked at another way, the total deaths from cancer during these years in your state were 7300, or an average of 6.6 deaths per day from this cause alone.

In Michigan for the three years from 1923 to 1925 inclusive, there were 10,984 deaths from cancer, practically ten per day. Here again, in this state as elsewhere, there has been a steady increase not only in the total number of cancer deaths but also in the cancer death rate per 100,000 population.

In 1924 in the United States registration area, 91,138 persons died of cancer. The registration area does not include the entire population of the United States, but if the same rate had prevailed throughout the country the total cancer deaths in 1924 would have been 103,000. It is also estimated that at one given time the people afflicted with cancer are three times the mortality rate. This means that at least 300,000 people in the United States have cancer at the present time.

It would carry us too far afield to consider the causes which have been set forth to explain this rather startling increase of cancer during the past quarter of a century. In fact, the problem of cancer in all its phases is so huge that one must necessarily select in an address of this nature but one phase of the subject. Those who are interested in the study of cancer in its many aspects, especially from a statistical standpoint, are referred to the voluminous and most interesting contributions of Frederick L. Hoffman, statistician for the Prudential Insurance Company.

I have chosen cancer of the uterus for consideration not only because I am more familiar with cancer in this locality, but because cancer at this site is so common. Of the 51,273 women dying of cancer in the registration area of the United States in 1924, there were 12,836, or nearly one-quarter, who succumbed to cancer of the female genital organs, and this means in large part cancer of the uterus. Moreover, cancer of the uterus is at a site where it is possible by careful attention to symptoms combined with an equally careful local examination to make a positive diagnosis of the disease at a stage where treatment will result in a high percentage of cures. In other words, cancer of the uterus is not so difficult to diagnosticate as is cancer at some other sites, such as the stomach and intestines.

And it is well in our discussions to dwell upon what we can do in the cure of cancer, for the tendency is toward pessimism in this regard on the part of both the laity and members of our own profession. It is extremely difficult to eradicate false ideas once they are firmly implanted in the minds of people. For example, it was taught fifty years ago that uterine fibroids ceased to give rise to hemorrhage or other symptoms after the menopause. Subsequent study of this question based on better pathology and more careful clinical observations showed these views to be erroneous, and that the statement was based on a half truth. Yet even today, thirty years after it became known that the menopause does not cause cessation of symptoms or growth in uterine fibroids, you will see many patients with the condition who have been told to wait until after the change of life before submitting to treatment.

Sometimes we forget that within the professional life times of some of us, the whole question of the cure of cancer in any part of the body by any means has been completely revolutionized. I remember distinctly in the early nineties performing hysterectomy for a carcinoma of the fundus in a patient referred to me by an old school physician of vast experience. When a number of years passed without a return of the disease, I could not convince the old gentleman there had not been a mistake in diagnosis. He was firm in his conviction that a real cancer of the uterus and breast could not be cured by operation. During his long professional life he had operated upon hundreds of cancers of the breast and had never seen one which did not recur. We know now why this was so. But while surgery advanced so that by wide excision



of the growth and lymphatics a cure was possible, the profession as a whole remained pessimistic. And there are many in that frame of mind today. It is a throw back to the old days when cancer was not cured by operation but where the latter was merely palliative.

First of all, let me briefly review the pathology and symptoms of cancer of the uterus, for much of our subsequent discussion will depend upon the correctness of our views regarding both.

Cancer of the uterus is of two kinds according as the cancer affects the tissues below or above the internal os uteri. Cancer below this dividing line is known as cancer of the cervix, above this point as cancer of the body of the uterus.

Cancer of the cervix is a treacherous disease. It may exist for some time, although not usually, before it produces symptoms which will attract the attention of the patient. It begins on the outer or vaginal surface of the cervix, which is covered by a modified epidermis made up of squamous cells without hair follicles, sebaceous or sweat glands. When this surface epithelium is affected first, it gives rise to a papilliferous cancerous growth, the so-called cauliflower cancer of the cervix. This form of cervical cancer may grow until a large mass projects into the vagina. Its appearance is formidable but in reality it is not so deadly as the other variety of cervical cancer, that starting in the endocervix or that portion of the cervical canal between the external and internal ora. Here the type of cell is not squamous but cylindrical, such cells lining the endocervix and the glands which branch from it.

Cancer of the cervix is deadly because the disease is carried so quickly by way of the lymphatics to the parametrial tissue and beyond to the deeper lymphatics and the pelvic tissues.

It is treacherous because the endocervix may be involved primarily and the cancer may progress quite extensively outward and by way of the lymphatics, while the external os may look quite healthy.

As the disease progresses the cervical tissue necroses and breaks down, giving rise to the crater-like excavations so commonly seen in far advanced cancer of the cervix.

Cancer of the body of the uterus is a milder form of the disease where the same cylindrical type of cell is involved, but the progress is slower because the lymphatics from this area are less abundant with the result that the cancer is more confined to the uterus than is the case with cancer of the cervix. Even when this form of cancer invades the wall of the uterus, even to its

serous surface, it still may be cured by a relatively simple hysterectomy which is not the case, as we shall see later, with cancer of the cervix.

In order to draw conclusions from actual clinical cases and not from the literature, I have tabulated and analyzed for this occasion 105 cases of cancer of the uterus in patients registered in the Department of Obstetrics and Gynecology of the University of Michigan since the opening of the new University Hospital August 1, 1925 to March 1, 1927.

I shall reserve the privilege of selecting certain facts brought out by this analysis, for it is not the occasion for a discussion of all the cancer data obtained through the investigation.

In the 105 cases there were ninety-six cases of cancer of the cervix and nine cases of cancer of the fundus of the uterus, or 8.5 per cent. This is a rather low percentage for in 500 cases of cancer I collected from the University Clinic in order to ascertain the age distribution and incidence of cancer of the uterus, there were 18.8 per cent of carcinoma of the fundus in the series. This is a rather high percentage according to various collected statistics. It would be fair to say that in a given series of uterine cancer, from 10 to 18 per cent would be found to be located in the fundus. It is unfortunate that the frequency of fundal and cervical carcinoma could not be reversed, since in that case many more lives could be saved for reasons before stated.

Since in this paper we are particularly interested in the early diagnosis of uterine cancer, it is interesting to consider the 105 cases from that standpoint. It may be stated that exact data are very difficult to obtain from the social class to which these patients belonged. This is illustrated by a study of the records of the ninety-six patients with cervical cancer where the duration of the disease has been pretty carefully gone into. For example, one patient said she had had symptoms of discharge and bleeding for about a week before entrance, yet examination revealed far-advanced excavating carcinoma of the cervix. There could not have been such an absence of symptoms with such a marked necrosis of cervical tissue.

On the other hand, ten patients stated they had had their symptoms from three to seven years. Such data are improbable since untreated cervical carcinoma only rarely exists beyond two and a half years.

Thus, so far as our histories are concerned, and they were quite carefully taken, they are of little value from the standpoint of when symptoms developed. Not only was this true of cer-

vical cancer histories but it is even more so with fundal cancer. The well known combination of fibromata and carcinoma of the fundus often led patients to think that the cancer started years before when the bleeding must have been due to the benign neoplasms.

However, the physical signs of the cancerous disease as revealed by bimanual pelvic examination told the true story of far-advanced uterine cancer in the majority of cases. This can be judged to be true in another way since only ten of the ninety-six patients with cancer of the cervix were considered operable, i. e., with the disease early enough to hold out a hope of cure through radical abdominal hysterectomy, an operative procedure employed for over twenty years in this clinic.

A patient with cervical cancer was considered operable if the uterus was found movable, the vaginal walls not invaded and the broad ligaments fairly free of the disease. It must be stated, however, that the introduction of radium into the clinic has somewhat decreased the number of cases deemed operable. Before the use of x-ray and radium it was felt that the only hope of saving the life of the patient with uterine cervical cancer was through radical operation. Hence too advanced cases were operated with a resulting high mortality. Now it is felt that borderline cases are better treated by radium since its use entails practically no primary mortality, and the results from surgery in this and the more advanced cases of cervical cancer are very unsatisfactory.

Of the nine cases of cancer of the fundus, seven were considered operable and two were found too far advanced. One patient refused operation but six were operated, one for certain reasons by a radical abdominal hysterectomy and five by ordinary pan-hysterectomy.

Not only were most of the patients with cervical cancer far advanced in the disease but fourteen had been treated by operation, x-ray or radium or combinations of these three agents before admission to the clinic. None of the patients with cancer of the fundus had received treatment prior to admission. Four patients with cervical cancer had had the wrong type of operation with not a recurrence but a continuation of the disease after the operative procedures. This is shown by a history of supravaginal hysterectomy in three cases and an amputation of the cervix in one case. Deducting the patients treated before entrance to the clinic, early examples of the disease were rare. Seventeen patients out of ninety with both forms of uterine cancer were

deemed operable, i. e., early forms of the disease. This means a percentage of 18.8 or a percentage of nineteen if cervical carcinoma alone be considered. This is a low percentage of operability but it is higher by nearly 5 per cent than has been the case in former years.

It is not my intention to report five-year cures of carcinoma of the cervix subjected to radical abdominal hysterectomy. In my last report made some years ago I was able to show in a limited number of cases a survival for five years of 40 per cent of the patients operated upon. The same percentage of five-year cures is claimed by those who advocate the use of radium in even the operable or early cases. What interests us at this point is that, if seen at an early stage and treated properly, 40 per cent of patients with cancer of the cervix can be cured. The percentage is even higher, perhaps 60 or 70 per cent in early cases of cancer of the fundus operated upon.

What are we as a profession going to do about this problem of seeing that patients with uterine cancer secure the proper treatment in an early stage of the disease? After all, is there such a difference between cancer and tuberculosis so far as the time element in treatment is concerned? We are quite confident that pulmonary tuberculosis can be cured if discovered early. Such was not the opinion thirty years or more ago. The profession and laity rather thought the patient doomed when the diagnosis was certain. Now all this has changed. Better, which means earlier, diagnosis means that the patient probably will be cured. Pessimism has given place to optimism, so far as a cure is concerned.

I agree that the two diseases are not similar, that tuberculosis can be cured without the knife or equally powerful agents. What I do argue is that the treatment of the two conditions is approached with different frames of mind. With tuberculosis both doctors and laity are cheerful and optimistic; with cancer they are despondent and pessimistic. Neither doctor nor patient wants to discover cancer, for both deep down in their hearts think there is no hope or very little hope of a cure if cancer exists. The people so afflicted submit to operations, for it is only natural for patients to agree to procedures which will benefit their condition. Yet there is no heart in the fight, and the doctor often is not much help for he is doubtful himself.

We doctors, then, must first of all be ourselves convinced that the fight against cancer is not hopeless. It is the duty of those of us who are convinced, to be missionaries and carry the good



word to others. No salesman who does not believe heart and soul in his product can make good.

We should preach to our patients morning, noon and night certain facts about cancer of the uterus. First of all we ourselves should realize that we have been spreading a partial truth when we have stated confidently that uterine cancer is almost invariably a disease of middle age or advanced years. Of the ninety-six women with cervical cancer, 23 or 24 per cent were forty years of age or under, and the youngest was only twenty-one years old. Thus we must revise our knowledge of the disease and include practically all the female population from twenty years of age upwards in our warnings if we are to do the most good. How often have I seen the look on a young woman's face when I have been talking about cancer, an expression I could easily interpret. For I have preached that cancer is a disease of middle age and what young woman of twenty-five or thirty years gives any concern to what may happen to her at forty-five? That time seems a long way off. She is simply sorry for the middle-aged woman, but thinks she herself is young and need not worry.

Secondly, we must preach that the cause of any profuse or irregular bleeding must be ascertained at the earliest possible moment if cancer of the uterus is to be discovered early when there is a hope of cure. One does not need to use the word cancer in driving these facts home, but if we are going to get anywhere in this fight against cancer we must not be timid about insisting that the cause of the abnormal flow must be ascertained. There is no more sense in hesitating to do this than there would be in postponing the examination of the sputum or investigation of the cause of a cough for fear of arousing in the patient's mind the fear that she may have pulmonary tuberculosis. We must rather over-emphasize the importance of irregular or abnormal bleeding to accomplish anything with our patients. They are accustomed to a blood discharge each month so that more than a normal flow may not give rise to any uneasiness, while valuable time is lost if the cause be carcinoma.

Thirdly, we must preach that profuse bleeding at the time of the menopause is always abnormal. It may not be cancer, but at least it is abnormal and the cause thereof must be ascertained. If the women were as apprehensive about abnormal bleeding as they are about pain in the right lower abdominal quadrant, many cases of early uterine cancer would be recognized in the early stages. If publicity worked so well with appendicitis that now the patient secures a room in a hospital and

then sends for the surgeon to remove the appendix, what could it not do if the dangers of abnormal bleeding could once be put across.

This abnormal bleeding before the menopause or any blood loss after this period is the key note in the discovery of cancer of the uterus. Of the 105 patients with uterine cancer 97, or 92 per cent had such symptoms. In more than one-half the cases it was stated that there was profuse or increased menstrual discharge or that the bleeding returned after the menopause. In the other cases the abnormal bleeding was accompanied by an increased leucorrhea at times with an odor.

The trouble was that either the patient paid no heed to the abnormal bleeding and put off going to the doctor because she had no pain, or she did consult the physician who, without an examination, told her not to worry, that her condition would right itself after a time. Unfortunately this is too often the story. I remember the details of one case only too well, that of a young woman of thirty-eight, who had increased menstrual flow together with a watery discharge. She was a hard working woman with seven children to care for. She consulted her mother who told her not to worry, that she had had the same thing at her age due to the change of life. When she entered the hospital the disease was far advanced and hopeless.

Fourthly, we must get it to the women in some way that while abnormal bleeding and abnormal discharge are early symptoms of the disease, pain is a late symptom. Many a woman, thousands of them in fact, have postponed action, postponed seeking advice, because of the absence of pain.

These things we should say again and again until they are as much the common knowledge of women as other things in their lives. Let us not try to tell them too much. We shall fail if we do, for they cannot carry much medical lore in their heads. It is by repetition, constant repetition, that things are brought home to people. Tuberculosis is contagious, it is catching, people with pulmonary tuberculosis should be careful of the sputum. All these sayings sounded odd at first but they were said over and over so many times that they became part of the common knowledge of most people, at least of the people who could read.

And that is one difficulty about disseminating knowledge about cancer of the uterus. One can't talk as openly of the womb as the lungs. While menstruation is a normal function and expectoration is abnormal and disgusting, we place a sign in a station, street car or other public place about the latter and are forbidden by public opinion

from mentioning the other except in a whisper.

However, there are signs of improvement. Not so many years ago the words syphilis, gonorrhea and prostitution were taboo. Now they can be used in the drawing room and not cause any commotion.

How best to bring the knowledge of cancer to the people is the question before us today. For over ten years the American Society for the Control of Cancer has been endeavoring to teach the plain facts about cancer throughout the country. Through its state chairmen many cancer weeks have been held which have undoubtedly been of great value in spreading cancer gospel. More recently the Society has urged that from time to time free cancer clinics be held where people who think they have cancer can come for diagnosis. Such clinics have been held during the past few years with the greatest success. In 1926 free clinics were held in eleven Detroit hospitals under the supervision of the Wayne County Medical Society and Dr. H. C. Saltzstein, and 2,345 people who suspected they had cancer were examined. Out of this number 200 previously unsuspected or untreated cases of cancer were discovered, not including hopeless or inadequately treated cancers.

Stimulated by such a showing, as chairman, for Michigan, of the American Society for the Control of Cancer, I appeared before the Council of the Michigan State Medical Society at its annual meeting and asked that the fight against cancer be sponsored by the State Medical Society through its councilors. The council readily agreed to the request and in May next, free cancer clinics will be held for a week in some of the larger cities of the state outside of Detroit.

We are now engaged in an educational newspaper campaign, setting forth the salient facts regarding cancer and in the state and local papers urging people who have symptoms of cancer or who think they have cancer, to apply at the clinics.

I am unfamiliar with the cancer organization in your state, although I know you probably have one. Such a committee may not see fit to experiment with free cancer clinics. It may have a better plan and if it has, I for one want it so that it may be introduced into Michigan where so many are dying of cancer each year, many who might be saved could they be reached before it is too late. For I am more and more convinced as I study the problem of cancer, that at least 50 per cent of cancer victims could be saved by early diagnosis and appropriate treatment.

### SCARLET FEVER CONTROL\*

By immunization with detoxified toxin,  
after the method of Larson

JAMES E. DYSON, M.D., Des Moines

I wish to contribute to the general knowledge of the Society by reviewing the literature on the use of scarlet fever toxin, which has been detoxified with sodium ricinoleate, a purified castor oil soap; and by giving my own experiences in using a toxin thus detoxified, for scarlet fever prevention. We find that the work is quite new and that the reports of the different men are at considerable variance. However, let us familiarize ourselves with these newer problems, let us analyze this work, and if there is any value in it for our patients, let us be prepared to give our patients these benefits.

In the year 1919 Dr. W. P. Larson,<sup>1</sup> bacteriologist at the University of Minnesota Medical School, discovered that sodium ricinoleate rendered non-infective many pathogenic bacteria, such as pneumococci and streptococci. Later Larson and Nelson<sup>2</sup> found that tetanic and diphtheric toxin were instantly detoxified in a solution of this purified castor oil soap when mixed in proper ratios. And as these detoxified toxins retain their antigenic properties unimpaired, the possibility of using these detoxified toxins for immunization purposes, suggested itself. Animals were thus immunized against diphtheria and tetanus by this means. They then immunized 576 institutional children with diphtheria toxin thus detoxified.<sup>3</sup>

Drs. Larson, Huenekens and Colby<sup>4</sup> have pointed out "certain fundamental conditions must be met before any prophylactic treatment will come into general use. A method that requires numerous injections is too cumbersome to be practicable. The treatments must be brought down to a minimum, preferably one treatment; they should be followed by little or no reaction, and, to be ideal, the immunization period should be shortened to come within the incubation time of the infection. The ideal procedure should further enable us to suppress an existing epidemic. From the public health standpoint it is more important, in our opinion, to be able to suppress an epidemic than to give a permanent immunity, although the latter is most highly desirable. By using toxin that has been detoxified with sodium ricinoleate, we have modified the toxin without altering its antigenic properties, so that a large dose of the toxin may be given without producing toxic effects. The detoxifying

\*Read before the Polk County Medical Society, Des Moines, Iowa.



agent is not antigenic, and hence there is no danger of sensitizing the patient to foreign serums. By using a non-antigenic detoxifying agent, we are independent of time intervals, as well as the previous history of the patient, should reinjections seem desirable. Intramuscular injections of from 3,000 to 5,000 skin test doses are followed by little or no reaction. Children over twelve years of age and adults seem to be slightly more sensitive to the toxin than younger persons."

As has been pointed out by Drs. Larson *et al*, the inoculations should be followed by little or no reaction. I have prepared a table of the reactions, sustained by my patients, to 1 c.c. intramuscular injections of Larson detoxified scarlet fever toxin.

Table I							
Age	No. of Patients	No. of Reaction	Redness of Arm	Swelling of Arm	Restless First Night	Fever	Rash
Under 2 Yrs.	5	0	5	3	3	None	0
2 - 5	28	3	18	5	5	None	
5 - 10	24	3	21	15	6	1 (101 1/2)	1 (3rd Day)
10 - 20	4	0	4	4	4	1 (101)	
Over 20	9	0	9	9	8	2 (slight)	

By studying this table, one notes that most of the patients inoculated were between two and ten years of age; that nearly all had redness of the arm where the inoculation was given into the deltoid muscle; that a considerable number had swelling of the arm; a few had a slight fever the first night following the inoculation; and that one youngster had a fine red rash appear on the third day, which faded in twenty-four hours and did not peel. The mothers of six children out of the fifty-two between two and ten years reported that they could see no reaction whatsoever. One notes that the percentages of patients showing restlessness the first night is greater in the older age groups, and that the two to five age group seem to have the least reaction. Three children became a little faint and sick at the time of the injection. All three of them recovered in a few minutes. I considered it a nervous or fear phenomenon rather than from pain. In no instance did any show signs of anaphylactic reaction and none had hives or joint pains as is found in serum sickness.

As has been mentioned, to be ideal the immunization period should be shortened to come within the incubation time of the infection as Pasteur treatment in rabies and vaccination for small-pox.

The following table is taken from Dr. Larson's report showing the dosages he tried out, the

length of time required to turn a positive Dick reactor into a negative Dick reactor, and the length of time the immunity was maintained.

Table II					
Table from the Journal A. M. A., April 3, 1926 Drs. Larson, Huenekens and Colby					
No. Dick Pos. Cases	Dose Larson Toxin	Retest Days	Percent Negative	Retest	Percent Negative
18 } 39 } 44 }	1000 1500 2000	5 7 8	48. 64.5 68.5	6 Months	70.
318 } 68 } 191 }	3000	8	77.3		
21	4000	8	90.	3 Weeks	97.
5	4500	8	100.		
2	5000				
2	10000				

In this table one notes that a considerable number of cases received 3,000 skin test doses and were immunized 77 per cent in eight days and 97 per cent in three weeks; a few were given larger doses with even better percentages of negative tests in eight days. Although Dr. Larson has set 3,000 as the advisable dosage for children, it may prove better to give 4,500 to 5,000, especially to adults. Even with the smaller dosages they report 70 per cent immune after six months.

I have constructed a similar table from the recent reports in the literature.

Table III					
Table from the Journal A. M. A., September 18, 1926 From report of Dr. Colby					
No. Dick Pos. Cases	Dose Larson Toxin	Retest	Percent Negative	Retest	Percent Negative
36 Girls }	3000	3 Months	{ 88. 60.5 }	6 Months	95.7
38 Boys }	1 Week later 5000				

Here Dr. Colby gave 3,000 skin test dose injections to seventy-four children of a reform school, ages six to eighteen years, and one week later gave them all a 5,000 skin test dose injection. Three months later he found 88 per cent of all the girls negative and but 60.5 per cent of the boys negative. He explains this difference by the fact that most of the boys were over fifteen years of age and would be harder to immunize than the girls who were younger. He found 95.7 per cent negative after six months.

Dr. Colby concludes that:

1. Positive Dick reactors can be immunized against scarlet fever streptococcus toxin.
2. Children under eight years of age may be safely given 3,000 skin test doses with this method.
3. In younger children immunity is effected within as short a period as eight days, which makes possible the suppression of an epidemic by active immunization.

4. In older children, while immunity is established more slowly, repeated Dick tests at three months and six months indicate a marked progressive immunization.

Table IV							
From report of Drs. Platou and Collins							
Archives Pediatrics, November, 1926							
No. Dick Pos. Cases	Dose		Retest	Percent Negative	Retest	Percent Negative	
54	250 500 1000	} Zingher Toxin	4 Months	80.	12 to 15 Months	4.	
100	9000			} Larson Toxin	61. to 68.	} 12 to 15 Months	90.
3 Mo. Pos.	9000				Larson Toxin repeated		

Dr. Platou is of the opinion that the Zingher toxin given in small repeated doses confers only temporary immunity. He also says that although a single injection of 3,000 skin test dose of the Larson toxin immunizes a goodly percentage of children, that a much larger amount is necessary to immunize an adult. He found it safe to give 9,000 skin test doses at one inoculation and two or three months later repeated the 9,000 to the positive Dick reactors. He obtained 90 per cent negative after one year.

I will now report a small series of patients to whom I have given 1 c.c. 3,000 skin test doses of scarlet fever toxin which Dr. W. P. Larson prepared for me:

Table V					
Number injected with Larson scarlet fever toxin.....					72
Number found Dick positive before innoculation.....					36
Number not Dick tested before innoculation.....					36
No. Pos. Dick	Dose Larson Toxin	Retest	Percent Negative	Retest	Percent Negative
36	3000	3 Weeks 11 Cases	90.9	6 Months 2 Cases	100.
		3 Months 5 Cases	100.	12 to 13 Months 22 Cases	90.
Number Dick positive who were contacts.....					9
Number not tested who were contacts .....					10
Total number of contacts.....					19
Number of contact cases contracting scarlet fever					0

In explaining this table, I must first apologize for its incompleteness, but this series is from my private practice almost entirely and many of the patients were doctor's children. I could not get them all back for retests. My results are similar to those given by our Minnesota associates, that is, a good immunity in a short time which lasts well six months, and fairly well for a year. This is a small series and not enough time has elapsed to prove very much. However, no patient who has received these scarlet fever inoculations has had scarlet fever and some of them attended schools where scarlet fever was prevalent. Nineteen cases were given the inoculations after

some one had broken out with scarlet fever in the same house, and not one of them developed scarlet fever.

An instance of how an epidemic was suppressed is that of the Iowa Deaconess Home. A nurse living in the home contracted scarlet fever out in a country town, came back into the home, and after a few days of fever developed a scarlet rash. She was taken to the scarlet fever detention hospital and all the girls in the institution, some fifty in number, were Dick tested. Eleven were found positive Dick. Of this positive Dick group, only five had been in the nurse's room since her illness. These five were given a 3,000 dose inoculation of Larson toxin twenty-four hours after the appearance of the scarlet fever patient's rash. No other case developed in the institution. All five are Dick negative now after three months.

SUMMARY

1. Dick positive reactors have been made negative in a few days in a large percentage of instances by one injection of 3,000 skin test dose of Larson's scarlet fever streptococcus toxin.
2. The reaction to the inoculation is not severe enough to prevent its general use.
3. Children and adults with positive Dick test and definite exposure to scarlet fever have escaped scarlet fever following such an inoculation.
4. The high percentage of negative Dick tests six months and one year after these inoculations would indicate a fairly lasting immunity.

BIBLIOGRAPHY

1. Larson, W. P., Hartzell, T. B. and Cantwell, W. E.: J. Infect. Dis., 25: 1 (July), 1919.  
2. Larson & Nelson: Proc. Soc. Exper. Biol. and Med., 21: 278, 1924.  
3. Larson, W. P. & Eder, H.: Journal A. M. A., 86: 998, 1926.  
4. Larson, Huenekens and Colby: Journal A. M. A., 86: 1000, 1926.

THE KAHN AND WASSERMANN TESTS FOR SYPHILIS

Dr. C. W. Maynard of the Pueblo (Colorado) Clinic has made a comparative study of the merits of the Kahn and Wassermann Tests based on six hundred cases. Dr. Maynard arrives at the conclusion that there is but little difference in the value of these tests. He believes that the Wassermann is a little more sensitive. In this series of six hundred cases the Wassermann gave 5 per cent more positive reactions than the Kahn, but that the study of his series did not show any material advantage of the one over the other except that the Kahn could be employed "where no competent clinical pathologist was available or in laboratories so situated that Wassermann reagents are not available".



## A PLAN FOR UNFOLDING THE PROJECT OF APPLYING MOTION PICTURES TO MEDICAL EDUCATION

J. F. MONTAGUE, M.D., F.A.C.S.

University and Bellevue Hospital Medical College Clinic,  
New York City

The medical profession has recently taken notice of the fact that a modern industry has placed at the practical disposal of teachers an extremely effective implement, namely—the motion picture film. Though this application of films to teaching technique has been suggested by various persons for the last ten years it seems that the prevalent juvenile crime wave has been a necessity in calling the attention of the public, both lay and medical, to the educational possibilities of the “movies”. The fact that such possibilities may be misappropriated and perverted is self evident. In the case of entertainment movies proper selection, as suggested by the National Board of Review, certainly would have obviated many of the monstrosities which have been thrust upon the public as recreative pabulum.

Since we, of the medical profession, are at present on the threshold of an activity along the lines of medical and surgical film production a few suggestions from the pioneers of the field may, if heeded, save us from the distressing spectacle of unscientific “scientific” films. It is my purpose here to point out the possible aberrations which may occur and to present, with a deep consciousness of the incompleteness of its detail, a plan for unfolding the project of applying motion pictures to medical and surgical teaching.

Perhaps the most unfortunate event that could possibly occur at this phase in the formation of the enterprise would be the hasty and ill considered attempts of every medical man to make his own films. Be it well noted that I deprecate only “ill-considered” attempts and not all such individual attempts. The marvelous expansion of radio witnessed within our own times has been due almost entirely to the widespread experimentation of amateurs. So, too, in medical motion pictures much good can come from the amateurs. But there is one important difference to be recognized and that is that moving pictures cost money to produce and mistakes are costly. Hence our amateurs are liable to quickly kill off an enthusiasm which if properly nurtured could form the basis of a substantial and progressive new school of thought in medical teaching. My first suggestion, therefore, is that any medical man contemplating this work should thoroughly acquaint himself with the most successful meth-

ods now known for making medical movies. By acting on this suggestion one will avoid the errors and faults which all pioneers have made. There are many special requirements of medical cinematography which the ordinary camera man is not familiar with. Indeed, there are many “tricks of the trade” wherein the ordinary camera man can learn from those of us who have encountered these difficulties and have overcome them. To be sure there are quite as many, if not more, items of technique whereof we are ignorant. All in all, I believe it will be fairer and, in the main, most satisfactory to acknowledge the fact that the art of photography is a special study and in fact “another man’s job”. Until we have cameramen with a medical education I believe it will be found most expedient to have the doctor content himself with directing the picture rather than actually taking it; to reserve his intrusion into photographic matters until some special problem arises which makes consultation between medical director and lay cameraman necessary.

Quite apart from the danger of overzealous and unrestrained amateur medical cinematography is the very real danger of the establishment of a virtual monopoly on medical films by one of the groups of medical men who, by virtue of superior capital and organization will perhaps seek to still further augment the inferiority complex which they now, in less subtle manner, wish upon the small town and city surgeon at the various association meetings. Such an event could only be construed as a catastrophe to a worthy project since it inhibits the right of freedom of the press. Though it may not be realized at this time the film is just as much a part of literature as is the book. The mechanical fact of it being printed on celluloid rather than on paper in no way negates the fact that it is an avenue of expression, a vehicle of speech.

To solve the equation for X seems the logical task for anyone who like myself has the courage to tell the truth when the truth only serves to place us on the horns of a dilemma. If we should avoid uncontrolled individualism and, on the other hand, must avoid selfish or bureaucratic monopoly you may well ask what happy medium can we strike?

The solution I propose is that Mr. George Eastman be allowed the honor of establishing a “Medical Film Foundation, Inc.” This proposed institution shall be endowed by Mr. Eastman with sufficient material and personnel to produce medical films. It shall, moreover, make films based on accepted and recognized medical books.

The selection of suitable books shall be arrived at by polling the entire medical public or in response to a sufficient number of written suggestions. This is essentially similar to the system used in Carnegie libraries. If there is a sufficient number of inquiries for a book, it is purchased. The "Medical Film Foundation" shall furnish to any recognized medical school, medical society or responsible group of medical men any of its films upon payment of a rental fee and transportation charges. The "Medical Film Foundation" shall furnish to any responsible group of laymen such medical pictures as are intended for lay use. The medical films made shall be directed by the author of the medical book being filmed or by some properly qualified doctor of medicine delegated by such author. The technical features of medical motion picture production shall be in charge of the technical staff of the "Medical Film Foundation".

The advantages of the plan I propose are manifold.

Firstly, we may be assured of the highest technical excellence of the film produced. Mr. George Eastman is the father of motion picture film and the staff he has trained are the foremost cinematographic experts in the world.

Secondly, the administration and control of the "Medical Film Foundation" by business men will remedy a notorious defect in many enterprises run by the medical profession.

Thirdly, the complete elimination of professional control will also completely eliminate the regrettable but actual professional jealousy which exists in many medical projects and works to their great detriment.

Fourthly, it assures the medical profession of an adequate and proper supply of educational films that can be of most service to them.

Fifthly, it assures continued freedom of the medical press. In making recognized medical books the basis of proposed medical films two purposes are served. (1) It assures the profession of material which has been thoroughly appraised before being released. The review of books by medical magazines throughout the country; the record of sales and finally the results of a referendum will all be effective guides to the selection of suitable and worthy subjects for films. It thus substitutes the principle of selection as advocated by the National Board of Review in respect to ordinary movies for the repulsive principle of censorship as advocated by fanatics. (2) It stimulates the production of medical books of real value. The distribution of these films will increase rather than decrease the

sale of the books filmed since if the film appeals, the profession will want greater detail than can reasonably be crowded into a film. If there be any doubt on this point attention is invited to the enormous sale of novels initiated by the feature pictures now presented throughout the country.

In conclusion it may be said that the medical profession has always acquitted itself in a generous fashion. Every doctor daily gives his time, energy and care to charity cases in the hospital wards and oftentimes in his practice. Mr. Eastman can respond on the behalf of the laity with this generous gesture which shall build for him an undying memorial in the minds and hearts of all humanity.

---

### MILWAUKEE RAILROAD'S SAFETY RECORD

---

The Milwaukee Railroad reports a decrease of 7 per cent in crossing accidents in 1926 compared with 1925.

For the United States as a whole there was an increase of over 8 per cent in grade crossing accidents.

The number of automobiles struck by trains and the number of trains struck by autos each decreased about 6 per cent.

In 1925 one hundred and sixty-four automobiles ran into our trains, striking them anywhere between the pilot and the caboose. Last year there were one hundred and fifty-three cases of this kind. Apparently automobile drivers are becoming more careful in approaching the rails.

The year 1926 rounded out the seventh year without a fatal injury to a passenger in a train accident on the Milwaukee road.

---

### A SCENE IN "LOST RIVER VALLEY"

---

French Lick Springs Hotel, Indiana, is now in mid-season, with horseback riding, golf, and other recreations vying with each other in popularity. Many visitors go to French Lick for the mineral waters that abound there in the region so well known as the "Lost River Valley". It is a picturesque as well as an historical section about which books have been written. But the healthful climate and the mineral waters continue to be the chief attraction for thousands of visitors each year. The beautiful gardens and surroundings of French Lick Springs Hotel bespeak the peaceful and healthful atmosphere which prevails there. The percentage of illness is considerably less there than in other cities, towns and villages of Indiana. Still the authorities provide for those who may be sick. Dr. A. H. Harold, an experienced physician of Indianapolis, has recently accepted the position as medical director at French Lick Springs Hotel.



# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

## Publication Committee

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

## SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII

June, 1927

No. 6

## PRELIMINARY REPORT OF COMMISSION ON MEDICAL EDUCATION, JANUARY, 1927

The commission has reviewed the condition of medical education in the United States. In the introductory chapter, the commission admits that some changes should be made in the curriculum of our medical schools; just what these changes should be the commission is not at the present moment prepared to say. Before presenting a definite plan, investigations are being made as to the needs of the public and of the profession. Certain recommendations are being considered as to the relations of the universities to their medical schools.

The more intelligently certain needs and conditions are inquired into the more definite will be the plans presented. In considering the field for inquiry the commission, to secure practical information prepared a questionnaire for the purpose of ascertaining the demands of medical service; second, the needs for medical service; third, distribution of physicians and specialization; fourth, supply of physicians; fifth, recruitment of students; sixth, criticism by practitioners of their medical training; seventh, community provisions for medical service; eighth, influence of medical licensure. With the information thus gained and with the opinions thus secured the commission will be in a position to formulate a plan of medical education which will meet the needs of a medical practice of today. The im-

portant requirement is to formulate a plan for the training of general practitioners. From personal observation it would seem difficult to reconcile the divergent opinions of groups of physicians which it is hoped will be benefited by this report.

April 18, 1927.

Doctor D. S. Fairchild, Sr., Editor,  
Journal of the Iowa State Medical Society.

Would you mind stating in your publication that we should be glad to supply a copy of the "Preliminary Report of the Commission on Medical Education" to any of your readers who may be interested in the general questions of medical education and practice? We should be glad to supply these copies without charge, and anyone desiring a copy of the report can obtain it by addressing: Commission on Medical Education, 215 Whitney Avenue, New Haven, Connecticut.

Sincerely yours,  
W. C. Rappleye, M.D.

## THE TRAUMATIC ORIGIN OF MALIGNANT GROWTHS

It is an accepted fact that trauma may excite a new growth by setting up a low grade inflammation which may undergo a degenerative process resulting in cancer. This is held to be particularly true in burns or chemical irritation. A difficulty in estimating traumatic influences lies in the fact that we know so little as to the cause of cancer. It so often happens that cancer occurs when there is no discoverable evidence or history of trauma. It also happens that many injuries occur without cancer and in the very small number of traumas in which cancer forms does not furnish conclusive evidence that there is any relation between the trauma and the cancer. Yet, Dr. W. B. Coley and others hold that there is sufficient evidence to establish the presumption that in certain cases cancer does follow injury. Conservative observers and pathologists, Ewing for instance, admit the traumatic origin of cancer, providing certain conditions are fulfilled, as length of time following injury and completeness of recovery from injury. Ophuls insisted on five conditions: (1) the fact of injury must be proved; (2) the injury must be reasonably severe; (3) the growth must develop at the site of injury; (4) it must appear reasonably certain that no tumor was present before injury; (5) the growth must appear within a reasonable time after the injury.

The limits have been somewhat arbitrarily set, and are generally three weeks at the least, and three years at the most.

As a practical consideration, if an inflammatory mass or growth follows an injury which shows no tendency to disappear it should be carefully removed in anticipation of malignant degeneration. If this is done all involved tissue should be removed for if only a part is removed the incomplete operation would add to the irritation and hasten the growth, as in removing a mole, which is potentially malignant, the cutting into it in a partial removal is liable, also, to serve as an irritation which will hasten the malignant growth, the same may be said of a burn or chemical irritation.

The admission of a contused wound as a cause of cancer has raised the question, if a single trauma may cause a cancer. If evidence should show a close relationship between trauma and cancer, it would greatly complicate the question of compensation in industrial surgery, for would it be possible to determine in a given case if cancer will follow? If so, should not this fact be taken into account in adjusting the claim for compensation? Unless some conditions be interposed which will make the basis of the claim too remote to be admitted, then all injuries carry the possibility of malignancy. It seems then in admitting the possibility of a single trauma causing cancer, the extreme rarity of the occurrence would render the conditions expressed by Ophuls reasonable.

---

#### THE CHAIR OF MEDICAL HISTORY AT JOHNS HOPKINS

---

In the Cincinnati Journal of Medicine we read the following editorial from the New York Times, an eloquent tribute to Dr. William H. Welch, who is to occupy the recently created chair of medical history.

"Johns Hopkins University in establishing a chair for the history of medicine, believed to be the first of such scope in America, is emphasizing the importance of the physician's background. In no other profession, unless it be the ministry, is a background more important than in that which has to do with progress in knowledge and treatment of bodies in which there is something as Dr. Thomas Browne said, 'that can be without us and will be after us, though it is strange that it hath no history what it was before us nor cannot tell how it entered in us'. But history in the hands of physicians and surgeons and research students has been written during the three centuries since that physician who desired to be remembered only in the 'universal register of

God', wrote his 'Religio Medici'. No one in America knows that history better than Dr. William H. Welch, who is to be the first occupant of the first American chair in this subject.

"Dr. Welch has already two major achievements to his credit. In 1884 he organized the faculty of the Johns Hopkins Medical School, and in 1916 he organized the Johns Hopkins School of Hygiene and Public Health. In the first he led 'a new departure in medical education', and incidentally trained a number of the foremost pathologists of America, besides doing important research work himself. In the second, he organized and directed the work of the first medical institution in the world designed primarily to promote research and teaching in the field of preventive medicine and public health.

"Now he enters upon a third undertaking in which the cure and prevention of disease are linked into a unity. With his unusual experience and learning, unsurpassed since Dr. Osler's death, and with a personality drawing all men to him, he comes in the autumn of his life to give of his own culture to the enrichment of those who are to carry on in his profession. Some may look upon such study as a mere ornament in medical practice; but his answer is that it is 'an asset to successful practice and to the pursuit of medical science'. It is essential to a further development of what we now have to show how we came into possession of it. He cites Dr. William Osler, his former associate, 'one of the outstanding physicians of all time', as a man whose knowledge was 'very largely based on the history of medicine'. He might have cited also Sir Thomas Browne:

"I could never content my contemplation with those general pieces of wonder—the flux and reflux of the sea, the increase of the Nile, the conversion of the needle to the North; and have studied to match and parallel those in the more obvious and neglected pieces of nature which without further travel I can do in the cosmography of myself. We carry with us the wonders we seek without us; there is all Africa and her prodigies in us. We are the bold and adventurous piece of nature which he that studies wisely learns in a compendium what others labor at in a divided piece and endless volume.'

"It is the history of man's exploration and discovery in the cosmography of his own self that Dr. Welch will now teach; and his own achievement is the best testimony to the value of his subject. His entrance upon this work is itself another milestone in the history of medicine in America."



## THE DANGER OF MEDICAL PRACTICE ACT AMENDMENTS

The question of medical practice acts is fairly well settled. It has generally been agreed that the best medical act that could be adopted would provide for a liberal general education and a medical training, including the fundamental and scientific branches of medicine, leaving the question of therapeutics to the individual judgment of the practitioner. This conception of medicine has never been agreed to by the various cults, or those seeking a short and easy road to the practice of medicine.

The original laws governing the practice of medicine, have generally been carefully constructed and provided fairly satisfactory protection to the public at the time they were passed, and became as reasonably satisfactory laws as the genius of our people would permit, when it was believed that the purpose of the law was to protect the practice of a certain group or profession. When it was found that the law restricted the practice of certain men, or when it was felt that the law was not restrictive enough to meet the views of certain other medical practitioners who believed that their school of medicine should be recognized as the true practice, it became quite easy to consider amendments. Those who were restricted by the original law with the aid of adroit amendment makers were able to frame an amendment that appeared innocent enough to escape much opposition, but in fact when submitted to legal construction was found to relieve the restriction and the original law which to many appeared satisfactory, had its vitality eliminated.

Referring to the Medical Act of 1886 it will be found that three groups were permitted to practice medicine: (1) those who passed a written examination; (2) those who presented a diploma from a regularly authorized medical school in good standing; (3) those who had practiced medicine in the state for five consecutive years.

The same act defined the practice of medicine as follows: "Any person shall be held as practicing medicine, surgery or obstetrics, or to be a physician, within the meaning of this chapter, who shall publicly profess to be physician, surgeon, or obstetrician, and assume the duties or who shall make a practice of prescribing or of prescribing and furnishing medicine for the sick, or who shall publicly profess to cure or heal." It was also provided that a penalty of not less than \$300, or more than \$500, for an attempt to practice medicine without a license. If the fine

was not paid a jail sentence was imposed. Ten years later a more rigid examination was required. In 1902 the chiropractic law was passed and in 1909 optometrists were permitted to practice but these new laws had no direct relation to the Medical Practice Act of 1886 which remained intact up to 1921, when an amendment to the original act was passed which provided that the words, "who shall publicly profess to cure or heal" be stricken out which destroyed the vitality of the 1886 act from a legal point of view.

Mr. Harry De Reus, formerly of Pella, now of Knoxville, in a paper published in the Journal of the Iowa State Medical Society interpreted the legal status of the act defining the practice of medicine and the legal effect of striking out the words "who shall publicly profess to cure or heal". Mr. De Reus recites the cases coming before the courts and to the supreme court on appeal, showing how complete the protection of the public under the original act before the innocent appearing amendment was passed.

We have abundant evidence that any practitioner of medicine regardless of fitness who may be able to secure a license from any of the several examining boards may practice medicine in Iowa. The only exception appears to be the restriction placed on osteopaths and chiropractors in the matter of surgical operations and this restriction will probably be removed at no distant day by some apparently innocent amendment.

The whole effort of the medical profession should be directed to the promotion of a law which shall have a direct relation to scientific medicine and watch amendments with suspicion, having Mr. Garber's innocent and apparently unimportant amendment in mind.

---

## REGULATION OF PHYSICIANS BY LAW

---

The Journal of the Medical Society of New Jersey published in the February number a special article on the Regulation of Physicians by Law. The presentation of an address by Mr. H. E. Kelly of Chicago by the editor is so directly in accord with Mr. Kelly's contention and with the observations and experience of the profession in general that we cannot refrain from publishing in full the article referred to.

---

There seems to be no direct way of remedying the difficulties involved; the only hope lies in the attitude of the medical profession itself, high ideals and culture; the inspiring of confidence with the public, creating the impression that there is but one medical profession and that based on education and

culture so adapted to the needs of the people as to bring comfort and advantage to all concerned.

Scarcely a session of any state legislature passes without someone proposing an amendment to the existing state law governing the practice of medicine, or the introduction of some new bill designed to confer legal recognition upon irregular followers of the healing art. For many long years the medical profession has been striving to maintain and further advance the standards of medical education, and to safeguard the public against danger to health and life through the inefficient service of ignorant and ill-equipped practitioners.

The medical departments of our universities have steadily increased the demands upon students of medicine until it now requires expenditure of considerably more time, labor and money to acquire the degree of Doctor of Medicine than it does to enter any other of the learned professions. Coincidentally, the profession has voluntarily asked the states to raise the standards of tests applied to those seeking registration or license to practice medicine within their borders.

Combining these facts, we find that today the man or woman who would become established in the proper way as one competent to enter upon the practice of medicine must, in nearly all of our states, have acquired a preliminary education equivalent to receipt of the degree of Bachelor of Arts, before entering upon the study of medicine; must then spend four years in a medical school that has itself complied with certain standards that give it a recognized position in the educational world; then spend at least one year studying the practical application of his knowledge in a hospital that is of acknowledged standing—medical schools and hospitals both being subject to classification by independent, outside agencies; and, must then submit to examination in all branches of the healing art by a Board of Medical Examiners appointed by the state, in order to secure a license or permit to offer his services to the public.

These are reasonable requirements of anyone to whom care of the lives of our people is to be entrusted, and it would seem only fair that everyone who desires, or feels called upon, to practice the healing art in any way should comply with these fundamental regulations. Nothing is more precious to us than life. The public has a right to require that those who set themselves up to deal with matters of life and death shall give evidence of possessing special knowledge concerning such matters, and the standard of education required of those about to become physicians can scarcely be placed too high. Knowledge never hurts anybody. Ignorance hurts many people. Let us, therefore, establish a high standard and a severe test for those who would be licensed as healers and let us apply that single standard alike to all would-be healers.

If state authorities are to determine who shall be permitted to practice medicine—and no one seriously questions the state's right in that direction—

it seems not unreasonable to demand that the state shall establish a definite standard of requirements and measure all applicants for license by that same standard. That is and has always been the position taken by members of the regular medical profession; they, in fact, first asked for inauguration and legalizing of such standards, and they continue to ask for uniform application of the law.

We have stated that nearly every year some group of would-be healers ask for modification of these standards and for legal permission to enter on the practice of medicine without giving evidence of possessing that degree of education or experience required by regularly licensed physicians. We would like to amplify that statement with an explanation of what happens where legislative bodies are seduced into granting special privileges to such groups and believe we can best accomplish our object by quoting from an address by a distinguished Chicago lawyer, Mr. H. E. Kelly, who has given much study to the problem of legally regulating the practice of medicine. Mr. Kelly speaks as follows:

#### **Standards Are Made Higher for Educated Doctors and Lower for Ignorant Ones**

The advocates of low legal standards of educational requirements for persons following the occupation of healing the sick have succeeded in getting legislatures in many states to abandon the single standard of educational requirements for all healers, and to adopt in its place, as a special privilege to them, different standards for different kinds of healers. In such states the usual high standard of proficiency remains for educated physicians who desire to practice their profession by the open use of all therapeutic agents, including drugs and surgery; but exemptions from that standard have been created in behalf of persons who designate themselves by a particular trade name and profess to use only one specific therapy or method. Those healers in favor of whom the exemptions have been created are thereby allowed, with much less preparation, to hold themselves out to the public as doctors of the higher proficiency are allowed to do.

#### **The Poor Doctor Gets the Reward Belonging to the Good One**

The consequence is that in the public mind no doctor is any better than any other healer, regardless of training or proficiency, because all persons holding themselves out as doctors appear to the public to have the same legal status and the same unqualified indorsement by the state. The legal status is the important thing in the public mind, because the people consider a doctor's proficiency as established by the stamp of the state's approval. They do not realize that the various persons holding themselves out as doctors possess different qualifications, and that some of them are capable of performing better service than others.

Even under statutes that require those persons who practice under a limited license to hold them-



selves out to the public as doctors with descriptive words of limitation, the people lose sight of the legal limitation, and look at every doctor who presents himself to the public as equal in every way to every other doctor. The limitation in the phraseology of the license, or in the manner in which the doctor holds himself out to the public, as a practical matter brings home to the people no notice of any substantial limitation. Accordingly the intention of the statute to apprise the people of a limitation is not realized.

Under such multiple standards of licensure of doctors the best prepared physician is subjected to the most exacting burdens in qualifying himself to pursue his occupation, while men of inferior qualifications, and of no qualifications whatever, hold themselves out to the public as doctors without subjecting themselves to those burdens. In other words the most inefficient healers are given the full benefits, so far as the public confidence is concerned, and so far as public confidence can be inspired by law, of the honorable professional status actually created by the hard work and self denial and by the ability and skill of the best physicians. This situation results in a wrong to the better qualified physicians, because it gives the rewards of their work, ability and skill to men of inferior accomplishments, and a wrong to the people, because it sets up inferior men as doctors and palms them off to the sick as men of ample proficiency. Therefore, instead of receiving the benefit of thoroughly qualified practitioners, the people are menaced by the service of doctors, vouched for by the state, of admittedly less than complete qualifications, without warning as to the danger to the individual patient of employing a doctor not completely qualified to perform the service for which the patient may call him to the bedside.

#### **State Fails to Realize Objects of Regulatory Legislation**

Moreover, the multiple standards of educational requirements for doctors prevent the state from rendering the particular service which it undertakes to render by a regulatory statute. While the state professedly undertakes to supply fully qualified doctors to the people, under such standards it actually abandons this intention, and supplies doctors admittedly not fully qualified to perform the required service. Under such a system those who are permitted to practice as doctors under a limited license, by only a limited method, upon only a limited number of diseases, or upon only a particular part of the body, are placed in a position to delude the people and inevitably to degrade the doctor's profession in the minds of the people by inducing them to rate all doctors by the standards of bad ones. The object of the state to supply a well prepared physician, in whom the people may reasonably place their confidence, is frustrated by multiple standards, under which poorly prepared doctors as a matter of

fact are permitted habitually to pursue the high-grade physicians' occupation.

There is no defense for the policy of putting the state's stamp of approval on unqualified healers. Every doctor, regardless of his proficiency and of the therapeutic agents used by him, is habitually and necessarily called to perform the fundamental service for the sick, that is, to ascertain the nature of the disease which the patient has, and to direct the application thereto of the best remedial agent, without exposing the patient or subjecting the people to unnecessary danger. Therefore, no person should be permitted to present himself as a doctor of any kind, under the state's authority, unless he is properly trained to serve initially any patient who may call him.

#### **Special Privileges Are Extended to the Less Qualified Doctors**

The practical effect of multiple standards is to extend by law a special privilege to the less qualified doctor. Exemptions are made in his favor from the standard provisions set up by the statute as reasonable and necessary for the protection of the public. In much of the late legislation osteopaths and chiropractors, and generally those healers pretending not to employ drugs and surgery, practice healing under the special privilege of being relieved from qualifying themselves as other doctors are required to do. Such a special privilege is illogical, because the doctors enjoying it diagnose and treat diseases; and that is the essence of the occupation, and is all that any other doctor does. Such a special privilege is also unfair to doctors who are required to meet the full qualifications and yet in practice are permitted to enjoy no greater actual privilege than the sub-standard practitioners. It is also prejudicial to the people, because it allows sub-standard practitioners, confessedly not prepared in accordance with recognized standards, to attempt to cure diseases for the treatment of which standard qualifications of proficiency are required for the benefit of the patient and for the protection of the public health.

#### **Healing Is an Indivisible Science**

It has become a common argument that if a healer selects one of the items of the known curative agents, and confesses his special devotion to it in treating disease, his belief as to what training he needs for the practice of this particular therapeutic agent is of consequence in determining what the law should require of him in the way of preparatory training. This argument needs but to be stated to exhibit its complete absurdity. It is not a question of an uneducated man's belief as to what he needs to qualify himself to heal diseases, but it is a question as to what should be required of him by the people in view of the profession which he undertakes to follow and of the obligations which he undertakes therein to discharge. His personal view of what his qualifications should be ought to be

given no weight; and in similar situations the personal view of an ignorant man is customarily given no consideration whatever. If the belief of an educated healer is to be the basis upon which standards of educational requirements are to be established, and this idea is to be pursued logically, surgeons may not be required to study drugs or medicines, and general practitioners may not be required to study the eye, or the ear, or the teeth, may not be required to study the general anatomy of the body, or the nervous system, or the action of the heart, or any of the other basic educational subjects.

The people generally accept the proposition that before a person should be allowed to hold out to practice a specialty in the treatment of human ailments, as that of the eye, or the ear, or the x-ray, or radium, or any other specialty, he must first have qualified himself by acquiring knowledge of all branches of the science of treating human ailments, being permitted thereafter to devote himself to preparation to practice his specialty. Why should an osteopath or chiropractor be exempted from this generally accepted proposition? There is no reason; and on the basis of the logic and practical administration of the healer's functions he should not be exempted. Osteopathy or chiropractic is not a separate science. It is merely part of the general science of treating human ailments. One following that method of treatment is no more discriminated against by being required to learn the fundamentals of the general science of treating human ailments, as prescribed by the legislature, than is a specialist, who confines his practice to some particular part of the body or to some particular method of treatment, but is nevertheless required to study all parts of the body, all diseases, and all forms of treatment before being permitted to practice his specialty. But under the present claims of osteopaths, who have now departed from their original doctrine of restricting themselves to massage and kneading without the use of drugs or surgery, and are claiming the right to use drugs as they desire and to perform surgical operations, an osteopath thinks himself discriminated against when he is not permitted to practice surgery and make use of such parts of general therapeutics and materia medica as he may think himself able to employ with profit to himself.

#### **Practice of Only One Remedial Agent Impossible**

There is a false notion that if a man uses only one agency for healing a disease, such as osteopathy or chiropractic, and alleges that he intends to restrict himself to the use of one of these forms of treatment, he ought to be required to study only so much of the world's learning about diseases and their cures as will enable him to administer osteopathy or chiropractic. A mere difference in the therapeutic agents used in healing a disease is not regarded by scholars in science as a governing factor in determining the education necessary to practice the doctor's profession; nor should it be in setting the legal educational standards for the qual-

ifications of persons to hold themselves out to the people as doctors. It is the physician's business to diagnose diseases, discover their existence and nature, and to apply the best remedy, not a limited remedy, to the cure of them. For this task no man can be qualified who is merely engaged in indiscriminately applying one remedial agent to all ailments.

The use of various specific therapeutic agents, like massage and kneading according to the osteopathic or chiropractic methods, is improperly designated, even in some court decisions, as a "system" or "school" of treatment of human ailments. The use of such an agent is no more a "school" or "system" than is the use of rhubarb or a hot water bottle. Such curative agents are merely items in the long list of healing agents. If an ignorant man, because he knows no other method of treatment, uses only massage, or a hot water bottle, for the treatment of diseases, he may not be said to be following the tenets of a "school" of healing science. He is merely restricting himself to one of the innumerable methods of curing diseases. Instead of receiving special privileges by law for being a specialist in a "new school" or "new system" of healing, he ought to be denied the right to practice healing at all, because of his ignorance of most of the world's known curative methods.

#### **The Law Must Provide for General Practitioners**

A standard of qualification, complying with which a doctor may practice on any part of the human body, on any disease to which man is heir, or by any remedial agent known to the world, without limitation, is necessary as a practical matter. It is not feasible to make all doctors specialists. Moreover, there manifestly must be the general practitioner with a wide acquaintance with all therapeutic agents and methods of healing. It is apparent that without him every small center of population, in order to receive the healing service necessary for its people, would be required to have a specialist in every branch of medical science. Such a requirement would deny necessary curative service to many people. The general practitioner is not only necessary for service in such localities, but he is primarily necessary in all localities as the first possible and convenient aid to be called by the patient, even though a specialist may later be found to be required. The standard for such a general practitioner must necessarily be fixed by the legislature as the standard of qualification for general unlimited practice.

#### **Multiple Standards and Multiple Boards Are Evils**

While multiple standards in themselves are unjustifiable, and thwart the state in discharging its obligation to the people, their vice is intensified by the establishment, as is done in some states, of multiple elective boards of examiners to license applicants who purpose to use different healing methods. In some states there is one board for licensing



the fully qualified physicians and surgeons, another for licensing homeopaths, another for licensing eclectics, another for licensing osteopaths, another for licensing chiropractors, and others for granting licenses to members of still different groups. If the multiplication of boards has stopped at any point, it is only because the followers of the innumerable other kinds of healing have not had enough political power to get separate boards for their particular cults. The logic of the situation would require under that system a separate board for every therapeutic agent. Ultimately, as different healing agencies should be promoted by advertising, for the creation of organized cults to give influence to their followers, the advocates of each therapeutic agent would have the logical right to a state administrative board of examiners of its own; notwithstanding that every physician has it within his reasonable accomplishment to direct the administration of all therapeutic methods, and that parceling them out to innumerable advocates of special remedies is unnecessary and undesirable; and notwithstanding that the only object which the state can legitimately have in regulating the physician's occupation is to supply to the people well trained doctors of broad information and skill in diagnosing diseases and applying thereto the best remedies known to the world.

Under a multiplicity of boards there is an unnecessary economic waste in sustaining them. There is also the waste of administrative management and supervision incident thereto. There is, moreover, the conflict that comes from the various standards of educational preparation naturally set up in multiple administrations. Furthermore, the existence of numerous boards and of multiple standards accentuates and keeps alive numerous warring cults that interfere by their partisanship with the non-sectarian application of all remedial methods to diseases according to the dictates of science.

The object of the state to provide a well trained profession, therefore, is doubly nullified by multiple standards and multiple boards, under which inferior standards receive the state's approval and are perpetuated from year to year by new cults, new boards and continuous propaganda for dividing the practitioners of healing into interrepellant, warring groups, accentuating trivialities and preventing the direction of the power of the state upon the creation of a great profession under a single standard of efficiency for the benefit of the public health.

---

### HOSPITAL CLINICAL CONGRESS

---

The Hospital Clinical Congress of North America, June 20 to 24, 1927, in the Milwaukee Auditorium, Milwaukee, Wisconsin, under the auspices of the College of Hospital Administration of Marquette University. The twelfth annual convention of the Catholic Hospital Association of the United States and Canada will be held coincident with the Hospital Clinical Congress.

### CANCER CONTROL

---

#### Statement of the Facts and Opinions Agreed to by the International Meeting on Cancer Control Held at Lake Mohonk, New York, U. S. A., September 20-24, 1926

Although the present state of knowledge of cancer is not sufficient to permit of the formulation of such procedures for the suppression of this malady as have been successfully employed for the control of infectious diseases, there is enough well established fact and sound working opinion concerning the prevention, diagnosis and treatment of cancer to save many lives, if this information is carried properly into effect.

1. The causation of cancer is not completely understood, but it may be accepted that for all practical purposes cancer is not to be looked upon as contagious or infectious.

2. Cancer itself is not hereditary, although a certain predisposition or susceptibility to cancer is apparently transmissible through inheritance. This does not signify that, because one's parent or parents or other members of the family have suffered from cancer, cancer will necessarily appear in other persons of the same or succeeding generation.

3. The control of cancer, so far as this subject can be understood at the present time, depends upon the employment of measures of personal hygiene and certain preventive and curative measures, the success of which depends upon the intelligent co-operation of the patient and physician.

4. Persons who have cancer must apply to competent physicians at a sufficiently early stage in the disease, in order to have a fair chance of cure. This applies to all forms of cancer. In some forms early treatment affords the only possibility of cure.

5. Cancer in some parts of the body can be discovered in a very early stage, and if these cases are treated properly the prospect for a permanent cure is good.

6. The cure of cancer depends upon discovering the growth before it has done irreparable injury to a vital part of the body and before it has spread to other parts. Therefore, efforts should be made to improve the methods of diagnosis in these various locations and the treatment of the cancers so discovered.

7. The public must be taught the earliest danger signals of cancer which can be recognized by persons without a special knowledge of the subject, and induced to seek competent medical attention when any of these indications are believed to be present.

8. Practitioners of medicine must keep abreast of the latest advances in the knowledge of cancer in order to diagnose as many as possible of the cases of cancer which come to them.

9. Surgeons and radiologists must make constant progress in the refined methods of technic which are necessary for the diagnosis and proper treatment

not only of ordinary cases but of the more obscure and difficult ones.

10. There is much that medical men can do in the prevention of cancer, in the detection of early cases, in the referring of patients to institutions and physicians who can make the proper diagnosis and apply proper treatment, when the physicians themselves are unable to accomplish these results. The more efficient the family doctor is, the more ready he is to share responsibility with a specialist.

11. Dentists can help in the control of cancer by informing themselves about the advances in the knowledge of the causes of cancer, especially with relation to the irritations produced by imperfect teeth and improperly fitting dental plates. They can also help by referring cases of cancer which they discover to physicians skilled in the treatment of cancer in this location. It may be doubted whether all dentists fully realize the help which can be obtained from x-ray photographs in revealing not only the state of the teeth but the condition of the bone surrounding them.

12. Medical students should be instructed in cancer by the aid of actual demonstrations of cancer patients, and this to a sufficient extent to give them a good working knowledge of the subject.

13. The most reliable forms of treatment, and, in fact, the only ones thus far justified by experience and observation, depend upon surgery, radium and x-rays.

14. Emphasis should be placed upon the value of the dissemination of the definite, useful and practical knowledge about cancer, and this knowledge should not be confused nor hidden by what is merely theoretical and experimental.

15. Efforts toward the control of cancer should be made in two principal directions: (1) the promotion of research in order to increase the existing knowledge of the subject, and (2) the practical employment of the information which is at hand. Even with our present knowledge many lives could be saved which are sacrificed by unnecessary delay.

---

#### COMPENSATION FOR SERVICES OF FAMILY PHYSICIAN

---

The Supreme Court of Louisiana says that the final accounting of the administration in the succession of the estate of Mrs. Bouziga was opposed by a physician who alleged that he was a privileged creditor of the succession in the sum of \$5,000, with legal interest thereon from January 1, 1924, for professional services rendered Mrs. Bouziga from January 30, 1923, until her death, December 27, 1923. The evidence disclosed that Mrs. Bouziga, who was seventy-seven years of age when she died, was stricken with a cerebral hemorrhage on or about January 30, 1923, and that this physician was called in to treat her. At first her condition improved. Later she developed Bright's disease, and a few days afterward grippal pneumonia. Several weeks

after that she developed erysipelas, and, in her declining condition, and at her advanced age, developed senile gangrene and infectious vesicles, which had to be ruptured. She also suffered from incontinence of urine and feces. She left an estate valued at a little over \$27,000. Her income was about \$100 a month.

The number of visits paid by a physician to his patient, during a protracted illness, is a factor in determining the compensation to which he is entitled. The number of visits paid by this physician to Mrs. Bouziga during the eleven months' period that he attended her was in dispute. The trial judge, after considering the evidence, fixed the number at 300, and the examination of the record by this court led it to the conclusion that there was no reason to disturb his finding in that respect. The services rendered by the physician were those of a family physician. The expert evidence offered to show their value was conflicting. The trial court found that he was entitled to \$1,500, but the supreme court's appreciation of the evidence leads it to the conclusion that this was excessive. After considering the number of visits made by the physician, the nature of the maladies from which Mrs. Bouziga suffered, and her means to pay, all of which should be taken into consideration, the opinion of the supreme court is that the evidence justified the conclusion that the physician was entitled to \$1,000 and no more, and that the judgment for \$1,500 should be reduced accordingly. Wherefore it is ordered that the judgment be amended by reducing the amount allowed from \$1,500 to \$1,000, and, in all other respects, including the allowance of interest and the recognition of the privilege prayed for, that it be affirmed; the costs of this appeal to be paid by the physician. Rehearing denied.—The Journal of the A. M. A.

---

#### THOMAS ADDISON

---

Three famous physicians were cotemporary practitioners to the Burrough Hospital; Bright, Hodgkin and Addison, whose names are familiar to students of medical literature. It is with pleasure we abstract from the Canadian Medical Association Journal a brief sketch of Dr. Thomas Addison.

Addison was born in 1795. Intended at first for the legal profession, the intention was changed and he went to Edinburgh as a medical student, and while there it is said he did not show evidence of great talent. After graduation he first obtained the position of house surgeon to the Lock Hospital in London, and later on became physician to the General Dispensary in Hatton Garden, where he learned dermatology from Bateman, the successor of the great Willan. He was elected as assistant physician to Guy's Hospital in 1824, and became full physician in 1837. Addison as portrayed by Sir William Halematic, and his position at Guy's was equal to, if not superior, to that of Sir Astley Cooper, while



his personal influence was greater than that of Bright. His strong position at Guy's Hospital was in marked contrast with his standing in the outside world, both medical and lay. At the Royal College of Physicians he had to wait nineteen years before being made a Fellow. He was never a censor, nor did he ever hold any lectureship or office. No court appointment or honorary degrees were conferred on him, and most surprising perhaps of all the Royal Medical and Chirurgical Society refused to publish some of his papers even after he had been its president. When he died neither the British Medical Journal nor the Lancet published an obituary notice. It is indeed sad to note that none of his discoveries brought him fame during his life, although many were named after him, such as Addison's disease, Addison's anemia, Addison's keloid, etc. His name is permanently impressed on medical literature. To him we are indebted for our knowledge of the morbid anatomy of pneumonia, the clinical signs of a fatty liver, the mixed infective character of the lesions in pulmonary tuberculosis, and the skin disease known as xanthoma.

---

### COFFEE DRINKING BY THE AGED

---

The human body with advancing age has a marked tendency to become more sensitive to stimulants such as caffeine, and the excitement of the nervous centers is less well borne in senescence than in the prime of life. With age comes increased nervous irritability and the need for more repose and sleep. The use of the stimulants coffee and tea by old people is, therefore, of questionable propriety.

Professor Oliver T. Osborne recently pointed out (Medical Journal and Record, 120 [1924]), supplement, CLXIII) some of the dangers that are liable to accompany a tea or coffee habit in old age. He says: "The action of caffeine (on the aged) is to increase general nervous irritability, cause polyuria, and especially to stimulate the thyroid and parathyroids to abnormally increased activity, with the result of more nervous irritability and muscular irritability and trembling. Caffeine often raises the blood-pressure, where such an increase of blood-pressure is not needed". He states further that coffee and tea are likely to increase the production of uric acid and that this substance is liable to irritate the kidneys and cause muscle and joint pains in old people. Professor Osborne is of the opinion that caffeine-containing beverages serve no useful purpose the case of the aged and that caffeine should be entirely avoided except in instances where the therapeutic use of the alkaloid is indicated.

Dr. Malford W. Thewlis, in the second edition of his book entitled "Geriatrics", calls attention to the increased susceptibility of old people to the stimulating action of tea and coffee. He urges a curtailment of the use of these drinks in senescence. The use of caffeine-containing beverages with the evening meal he considers very liable to interfere with sleep. Dr. Thewlis directs notice to the supersensi-

tiveness which old people frequently exhibit towards certain drugs; he believes that the old rule that "children and the aged cannot stand large doses" is not without foundation. Ordinary observation shows that the aged are more susceptible to caffeine than younger persons. It is not at all uncommon to hear individuals past the prime of life say they can no longer drink coffee because it keeps them awake.

Even Professor Samuel C. Prescott, who made an investigation of the effects of coffee and came to the conclusion that it is harmless for the majority of adults, says that "many individuals find with advancing years that smaller quantities (of coffee) will suffice", thus conceding that people do become more sensitive to caffeine as they grow older.

It is generally known that caffeine stimulates the heart's action and thus tends to raise the blood-pressure. While caffeine is a vaso-dilator as well as a heart stimulant, its dilating action upon the hardened vessels of the aged will be less effective than in the case of younger persons; hence the increased pressure due to the heart's action will not be compensated for by relaxed arteries, and the blood-pressure will accordingly increase.

Finally it can be stated that in old age sedatives rather than stimulants, such as caffeine, are called for; old people should avoid the stimulants tea and coffee, not only because they are undesirable irritants of the nervous system, but also because they have a harmful effect on the blood-pressure, cause excessive uric acid production within the body, and may, as Professor Osborne points out, produce abnormal activity of the thyroids and parathyroids.

---

### NEW DISCOVERY MAY EXPLAIN MANY FOOD-POISONING CASES

---

A new food poisoning organism discovered by a microbiologist of the Bureau of Chemistry, United States Department of Agriculture, may possibly aid in explaining many poisoning cases that could not be attributed to organisms of the common food-poisoning group. Organisms of the latter group—known scientifically as the paratyphoid-enteritidis group—are the only ones hitherto recognized as a cause of intestinal disturbances. The new organism, although it has not been identified as any well-defined species, belongs to another group. In appearance it has much in common with the ordinary lactic types used in the preparation of "starters" for butter and cheese making.

The new organism was first believed to be a source of food poisoning when B. A. Linden of the Bureau of Chemistry found it in a sample of imported cheese held responsible for an outbreak at Biddeford, Maine, in 1925. Milk cultures of the organism were made and fed to cats in which violent intestinal disturbances were produced within a few hours. The same organism has since been isolated in two other outbreaks, in both of which cheese was the one article of food eaten by all persons affected.

Organisms of the old group of food poisoners, so commonly reported to be the cause of food poisoning outbreaks, were not found. In each of these outbreaks the streptococci, the group to which the newly found organism belongs, were recovered and fed in milk cultures to cats with results like the first trials.

So far no sickness has been produced in experimental tests except when milk was used as a culture medium. The organism will grow and multiply on meat and other media, however, and this may possibly leave many avenues open for contaminating human food.

Dr. Charles Thom, in charge of microbiological work for the Bureau of Chemistry, regards the discovery of this organism as the most outstanding achievement of the year in his field of investigation. He further suggests that while there is no general danger from this source of poisoning it does offer another forceful argument for the pasteurization of milk before using it in manufacturing dairy products.

---

#### NEW ENGLAND HAS FEWEST HOMICIDES IN INDUSTRIAL POPULATION

---

The Statistical Bulletin of the Metropolitan Life Insurance Company reports that the homicide death rate of the United States per thousand of population is nearly twelve times that of England and about five and one-half times that of Canada. Although this includes our colored population, among whom the rate is much higher than for the white population, even if restricted to white persons the homicide rate of the United States would still be almost seven times that for England and Wales. The rates for the years 1923, 1924 and 1925 were the highest ever recorded among the industrial population. Although the figures compiled for the greater part of 1926 indicate a decline in the rate for that year, such declines from year to year in the past have proved to be only transitory and were followed in subsequent years by considerable increases. The homicide rate for the industrial population has shown a slight upward tendency during the sixteen year period 1911-1926, while the suicide rate has been almost halved.

The highest homicide rate among the white policyholders in the year 1925 was for the cities of Arkansas; then came in order Tennessee, Florida, Alabama, Nebraska and Oklahoma. The best record in the white industrial population was in Maine, and then in New Hampshire, Vermont, Delaware, Colorado and Oregon. Not a single homicide was recorded among the white policyholders in any of these six states, although 470,300 white persons were exposed to risk in them. The four Canadian provinces, New Brunswick, Manitoba, Saskatchewan and Alberta did not record a single homicide among their urban industrial population during 1925. In the colored industrial population the enormously high death rate of 115.2 per hundred thousand of population was recorded for Oklahoma; 78.2 for

Minnesota; 66.1 for Michigan; 59.9 for Nebraska; 56 for Missouri; 53.9 for Illinois, and 50.5 for Florida. The lowest death rate for colored as well as for white policyholders was in New England. Considered by broad geographic regions, the highest homicide death rate in the white urban industrial population was 8.4 per hundred thousand in the East South Central region. The next highest rate was 8.2 in the West South Central states, and the highest rate in the colored industrial population was 52 in the West North Central states, followed by 49.7 in the East North Central states.—The Journal of the A. M. A.

---

#### KEOKUK MEDICAL GRADUATES TO HOLD REUNION

---

Medical colleges of Keokuk, whose graduates will come to Keokuk in June for their reunion, are practicing in thirty-six states, Dr. Joseph M. Trigg of St. Louis, has found out in making a check of the alumni of the local schools. There are 3,271 graduates of the Keokuk schools of whom 979 are living. There are living representatives of every class from 1864 to 1908 with the exception of the class of 1870 which has no living alumnus.

Located by states the living alumni are:

Iowa 262, Illinois 195, Missouri 104, Nebraska 59, California 58, Kansas 58, Oklahoma 38, Colorado 31, Minnesota 15, South Dakota 15, Wisconsin 15, Oregon 13, Texas 13, Indiana 12, Ohio 10.

There are 473 living graduates of the old college of Physicians and Surgeons, graduates of the old Keokuk Medical College living number 198 and there are 308 living who graduated from the combined schools. Forty-one faculty members are living, too, Dr. Trigg finds.

It was the suggestion of Dr. Trigg last year that the reunion should be held in Keokuk and he has made a survey of the schools covering some forty-nine pages, which he plans to put into a pamphlet form. The reunion was announced for June 8, but Dr. Trigg is wondering if the date could be changed for the reason that his daughter has set this date as the one for her marriage.—Gate City.

---

#### BILL FOR GORGAS MEMORIAL LABORATORY

---

The senate committee on foreign relations has approved a bill introduced by Senator Wadsworth, New York, providing for the erection and maintenance of the Gorgas Memorial Laboratory in Panama, to be paid for in part by the United States to the extent of an annual expenditure of \$50,000. The bill contemplates that South and Central American governments will contribute annually for the maintenance of the laboratory, and that the government of the United States shall be represented on the board or council directing the administration of the laboratory.—Journal of the A. M. A., February 26, 1927.



## SOCIETY PROCEEDINGS

### Calhoun County Medical Society

The Calhoun County Medical Society met at Lohrville, April 21. The meeting was held following a courtesy dinner tendered by the Lohrville physicians. There was a good attendance with visitors from nearby counties as follows: Drs. Anneberg, Carroll; Hamilton and Lucke, Jefferson; Lohr, Churden; and our distinguished guest Francis W. Heagey of Creighton medical faculty, Omaha.

Dr. Heagey addressed the meeting on Relation of Internal Medicine to General Practice of Medicine. This paper was well prepared, well delivered and as well received.

The secretary of the Farm Bureau and the county chairman of the Four H girls clubs asked the society to take charge of examinations for a county-wide health contest to be held at the Rockwell City fair. It was decided that the society would examine all (free of charge) who enter the contest.

President Eleanor Hutchinson told of her intended departure for Washington, D. C. where she has accepted the post of resident physician of the new Federal Reformatory for Women (patterned in a large way on Iowa's small reformatory at Rockwell City). Her resignation was regretfully accepted and vice-president Henrichs advanced to the office of president and Dr. Isenberg elected to the office of vice-president. In view of the many courtesies extended this society through Dr. Hutchinson's kindness and her splendid administration of her office, she was asked to act as president "ex-officio" for the balance of the year.

P. W. Van Metre, Sec'y.

### Dubuque County Medical Society

The Dubuque County Medical Society elected the following officers at the December meeting: President, Dr. W. A. Hennegar; first vice-president, Dr. F. P. McNamara; second vice-president, F. S. Leonard; treasurer, Dr. A. B. Nesler; secretary, Dr. W. J. Connell; librarian, Dr. I. S. Bigelow; censors, Drs. J. J. Brownson, J. H. Schrup, H. E. Thompson; delegate, Dr. Frank Meyers.

The meeting was addressed by Dr. Agnew of Independence, councilor for this district. Annual reports of the officers as well as of standing committees were heard.

Since the beginning of the new year a new plan, worked out to increase the value of the scientific meetings, has been carried out. Business and scientific meetings are held on alternate months. The scientific meetings have been held as joint meetings with the staffs of Finley and St. Joseph's Mercy Hospital. Two hundred invitations to these meetings were sent to doctors in the vicinity of Dubuque.

The first joint meeting was held at Mercy Hospital in February when the following papers were read:

1. The Management of Normal Labor—Dr.

Greenfield, Northwestern University, Chicago, Illinois.

2. Vomiting in Childhood—Dr. J. K. Tenney, University of Wisconsin Medical School, Madison, Wisconsin.

The second meeting was held in April at Finley Hospital when the following program was carried out:

1. Diagnosis and Treatment of Menorrhagia—Dr. Leda Stacey, Mayo Clinic, Rochester, Minnesota.

2. The Significance of Well Taken Histories in Gastrointestinal Diagnosis—Dr. W. C. Alvarez, Mayo Clinic, Rochester, Minnesota.

Doctor Alvarez also demonstrated motion pictures of intestinal peristalsis in the living animal.

Each meeting was preceded by a banquet served at the respective hospitals. Both meetings were largely attended and highly enjoyed by all present.

Plans are now being made for the annual June meeting of the Dubuque Society, as well as for the one of 1928, which will be the diamond jubilee of the founding of the society.

### Greene County Medical Society

The Greene County Medical Society and the Greene County Dental Society held a combined meeting, April 27 at the Lincoln Hotel, Jefferson. Following the supper the societies were addressed by Albert Davis, D.D.S., B.Sc., M.D. of Omaha, Nebraska. His subject was Plastic Surgery, with Special Reference to Cleft Palate. The subject was freely discussed by all the members present.

Richard Lucke, Sec'y.

### Johnson County Medical Society

The Johnson County Medical Society held its regular monthly meeting at the Commercial Club rooms, Iowa City, Wednesday evening, May 4th, from 6:00 to 9:00 p. m. Forty-nine members and two guests were present. One application for membership was acted upon, bringing the total up to seventy-eight, the largest, we believe, in the society's history.

Two very interesting papers were presented, one by Dr. J. T. McClintock of the department of physiology, on the Physiology of the Spleen. The second by Dr. O. H. Plant, head of the department of pharmacology, on the Action of Certain So-called Cardiac Stimulants on the Heart. This was illustrated by moving pictures of experimental research done in the department of pharmacology.

A spirited business meeting followed the presentation of the scientific program.

Geo. C. Albright, Sec'y.

### Page and Fremont County Medical Societies

The medical society of Page and Fremont counties held a joint meeting at the Delmonico hotel in Shenandoah, Wednesday evening, March 2, opening with a dinner at 7 o'clock. There were between twenty-five and thirty present from the two counties and a

few present from Montgomery county, the town of Red Oak being represented.

Following the dinner a discussion of general society matters was held and was followed by an address by Dr. E. S. Henry of Omaha on the subject of General Surgery. Dr. E. E. Kelley, also of Omaha, gave a very interesting address on Psychoneurosis. The meeting was enjoyed by all and proved very helpful. It was decided that the next meeting will be held in Clarinda some time in June.

Following are the doctors who were present from Clarinda: T. E. Powers, R. J. Matthews, F. K. Burnett, A. M. Sherman, F. H. Clark, J. W. Sellards, and C. C. Parriott.—Clarinda Journal.

### **Palo Alto County Medical Society**

The Upper Des Moines Medical Society met in Emmetsburg on the afternoon and evening of April the 27th as the guest of the Palo Alto County Medical Society.

During the afternoon a clinic was conducted by the following men from the Park Hospital Clinic at Mason City: Dr. L. R. Woodward—Medicine; Dr. Geo. M. Crabb—Surgery; Dr. C. F. Starr—Obstetrics; Dr. C. E. Chenoweth—Eye, Ear, Nose and Throat.

In all about seventeen patients presented themselves. The histories and physical findings with laboratory and x-ray findings had been previously prepared by members of the Palo Alto Society. From among these about half were presented before the clinic. This part of the program was unique for medical gatherings in this part of the state and was declared to have been very profitable by the doctors in attendance. The success of the clinic was largely due to the assistance rendered by Miss Ella Van Horn, Red Cross Nurse for Palo Alto county. She was assisted by Miss Emma Lorenzen, superintendent of the Palo Alto Hospital and by Mrs. Mildred Young, a local graduate nurse.

At 7 p. m. dinner was served in the new Hotel Kermore, after which the following papers were presented:

#### **Program**

Dr. H. A. Powers, president Upper Des Moines Medical Society, chairman.

Dr. C. E. Chenoweth—The Results of Operative Treatment in Sinus Disease.

Dr. M. J. Kenefick, president Iowa State Medical Society—Malpractice and Medical Defense.

Dr. C. F. Starr—Some Observations on the Endocrine Glands.

Dr. R. C. Coleman—Diagnosis and Treatment of Pelvic Disease.

Dr. L. R. Woodward—Malta Fever.

During the afternoon session the ladies were entertained at the home of Mrs. James Hennessy under the direction of Mrs. F. X. Cretzmeyer. During the evening program the ladies attended the local theatre in a body.

Officers elected for the ensuing year are: President: Dr. E. E. Munger of Spencer; vice-president,

Dr. J. B. Knipe of Armstrong; secretary and treasurer, Dr. Geo. Keeney of Mallard.

Harold L. Brereton, Sec'y.

### **Sac County Medical Society**

The annual meeting of the Sac County Medical Society was held at the Hotel Park, Sac City, on Monday evening, March 28. A banquet was served and the members present, namely: Doctors W. J. Findley, J. H. Stalford and G. H. Swearingen, Sac City; Doctor J. R. Dewey, Schaller; Doctor A. S. Hayden, Wall Lake; Doctor E. E. Speaker, Lake View; Doctor F. L. Blair, Lytton, and Doctor James McAllister, Odebolt, passed the evening in discussion of matters of mutual interest and helpfulness.

The officers were reelected as follows: President, Doctor Swearingen; secretary, Doctor McAllister; treasurer, Doctor Stalford.—Sac City Sun.

### **Austin Flint-Cedar Valley Medical Society**

Dates for the 1927 mid-summer meeting of the Austin Flint-Cedar Valley Medical Society were fixed as July 12-13 at a conference between officers of the organization and a committee from the Cedar Falls Medical Society held at Cedar Falls recently.

Tentative plans for the convention, which is expected to attract upwards of 250 physicians from all over northeastern Iowa, were outlined and details of local arrangements left in the hands of the Cedar Falls organization, which had named a special committee of three to handle them. This committee consists of Dr. W. L. Hearst, Dr. A. S. Hansen and Dr. S. W. Barnett, the latter being secretary of the local society.

Officers of the Austin Flint-Cedar Society present included Dr. C. T. Gretzmeyer, Algona, president; Dr. J. E. Brinkman, Waterloo, vice-president; Dr. Woolward, Mason City, secretary, and Dr. W. E. Long, Mason City, treasurer.

According to plans discussed but subject to change in various details, the mid-summer meeting will be addressed by the greatest array of eminent specialists that ever appeared on a single program. Quite a number of nationally known personages in the medical world are to be here. Entertainment features are yet to be worked out, but it was stated that there would be various functions for the doctors' wives, who will also attend this convention.—Cedar Falls Record.

### **PERSONAL MENTION**

At the annual meeting of the Mercy Hospital staff, Dubuque, the following staff officers were elected: Dr. Charles Palem, president; Dr. A. M. Loes, vice-president; Dr. Leslie Fitzgerald, secretary and treasurer.

Dr. J. N. Dodson of Chicago was the guest of the Des Moines Medical Study Club at a dinner at the Des Moines Club, April 5th. The doctors present were: Dr. N. Boyd Anderson, Dr. John Connell,



Dr. H. H. Dilley, Dr. J. E. Dyson, Dr. F. W. For-  
dyce, H. W. Dahl, Dr. Lee F. Hill, Dr. R. R. Sim-  
mons, Dr. H. J. McCoy, Dr. L. K. Meredith, Dr. M.  
M. Myers, Dr. H. E. Ransom, Dr. F. W. Rice, Dr.  
V. E. Ruth and Dr. R. R. Snyder.

Dr. George Cullen, for a number of years a prac-  
titioner in Des Moines, has moved to Chicago where  
he will become identified as medical director of an  
insurance company. For some years past, Dr. Cul-  
len has been associated with the Equitable Insurance  
Company of Iowa.

Dr. Grant J. Ross of Sioux City celebrated his  
eighty-fifth birthday, April 23. Dr. Ross has prac-  
ticed medicine sixty years. For forty years of this  
period he has practiced in Sioux City.

Dr. Frank H. Conner of Nevada will be a member  
of the Inter-state Post-graduate Medical Association  
in its clinical visit to Europe which sails from New  
York May 21st, at the close of the American Medical  
Association session.

---

### MARRIAGES

Dr. M. J. Moes of Dubuque and Miss Gertrude  
May Mallander, also of Dubuque, were married at  
the Holy Name Cathedral in Chicago, November  
5, 1927.

---

### OBITUARY

Dr. A. E. Rockey of Portland, Oregon, died  
March 28, 1927. Dr. Rockey had gained a well  
deserved distinction as a surgeon at Portland. He  
began practice at Iowa City in 1878 and moved to  
Portland in 1891 after nearly two years' study in  
Germany. During Dr. Rockey's residence and prac-  
tice in Portland he came in competition with a group  
of highly trained and virile surgeons.

Dr. Benjamin Franklin Morgan died at Clay Cen-  
ter, Kansas, February 28, 1927. Dr. Morgan was  
born in Pella, August 3, 1857. He began the study  
of medicine at the Iowa College of Physicians and  
Surgeons (Drake) at Des Moines and continued his  
college work at Rush Medical College, Chicago. Dr.  
Morgan was for many years surgeon for the Union  
Pacific and the Chicago, Rock Island and Pacific  
railroads. He was elected president of the Kansas  
State Medical Society.

Percy R. Wood, formerly of Marshalltown and  
Waterloo, died at his home in Indianapolis, Indiana,  
March 6, 1927 of heart disease.

---

### MEDICAL NEWS NOTES

According to a statement made by the Illinois  
Medical Journal for July the membership of the  
Chicago Medical Society has reached 4,002.

### EUROPEAN CLINICAL TOUR

It will be of considerable interest to the physi-  
cians of Iowa to know that the European Clinical  
Tour, sponsored by the Shenandoah Travel Plan of  
Shenandoah, Iowa, met with such success last year,  
that the tour is again planned for this year.

The organizers of this tour have been fortunate  
in securing the leadership of Sir Henry Gray, well-  
known surgeon and surgeon authority of Mon-  
treal. Doctor Gray has personally arranged a series  
of clinics and will personally conduct this portion  
of the tour. In Liverpool, the Clinic will be held  
by Sir Robert Jones, considered by many the great-  
est Orthopædic surgeon in the British Empire. In  
Leeds, the Clinic will be held by Sir Berkeley Moy-  
nihan, considered by many the greatest surgeon  
authority of the English language. This Clinic will  
be held in connection with the Leeds Medical Col-  
lege and conducted in the Royal Infirmary. In  
Birmingham, the Clinic will be conducted in the  
Orthopædic and Spinal Hospital by Naughton  
Dunn, Orthopædist. The Clinic in London will be  
held in the London General Hospital, a hospital of  
over 800 beds and will be conducted by Sir Hugh  
Mallison Rigby.

The plan of this tour does not consider medical  
clinics except in England but a number of optional  
side trips including trips to Ireland and the Conti-  
nent are available. The experience of previous  
years would indicate that every available space will  
be reserved and since the number accepted is lim-  
ited, physicians interested in this trip should make  
application to Earl R. Ferguson, Shenandoah, Iowa,  
at once. The cost of the trip including the Clinic  
of England is quoted at \$298.75.

An announcement of this tour is made elsewhere  
in the Journal.

---

### ABBOGRAMS

At the annual meeting of the Abbott Laboratories,  
held March 17, the following officers and directors  
were elected: President, Dr. Alfred S. Burdick;  
vice-presidents, E. H. Ravenscroft, Henry B. Shat-  
tuck, James W. Ranson; treasurer, C. O. Brown;  
secretary, S. DeWitt Clough; general counsel, Al-  
fred W. Bays.

Dr. Alfred S. Burdick sailed on the Cedric, April  
9, for a two months trip in Europe. He is ac-  
companied by Mrs. Burdick, Mrs. H. B. Shattuck  
and Mr. H. B. Shattuck, manager of the New York  
branch of the Abbott Laboratories. England,  
France, Germany, Switzerland and Italy will be  
visited.

Ephedrine stocks, which have been somewhat  
uncertain since this drug has obtained wide pop-  
ularity with the medical profession, are now ample  
to supply all demands. Large quantities of Ephe-  
drine, Hydrochloride, manufactured by the Abbott  
Laboratories, have been shipped during the past  
month.

## CHEMISTRY IN MEDICINE

On April first, at Buffalo, New York, the members of the Western New York Section of the American Chemical Society, listened to an address by Dr. E. H. Volwiler, chief chemist of the Abbott Laboratories on the subject "Some Applications of Chemistry to Medicine".

Beginning with the early history of drugs, antedating everything but food and clothing, the speaker traced the development and use of medicinal agents from opium and quinine down to our present-day dyes, synthetic compounds and glandular discoveries, such as Adrenalin, Ephedrine, Thyroxin and Insulin.

Doctor Volwiler displayed versatility as well as an intimate knowledge of his subject in discussing at some length such interesting and widely diversified topics as Vitamines, Hypnotics, the applications of metals to medicine, including the Arsphenamines, Bismuth and Mercury Compounds.

The speaker's references to chemical progress in the search for remedies for sleeping sickness by Fourneau, for leprosy, by Roger Adams; and for malaria, were of absorbing interest.

The field of antiseptics, including the work of Dakin in developing the Chloramines, the use of dyes, including Acriflavine, Metaphen, Flumerin and Mercurochrome was covered in the address.

Doctor Volwiler pointed out the development of present-day local anesthetics and their advantages over cocaine. Among the products discussed were Butyn, Procaine, Tutocaine, Apothesine, Anesthesin, Butesin and Butesin Picrate.

The study of uric acid eliminants brought out interesting references to our later day remedies in this field. The author's discussion in this field ranged from the early use of lithium in rheumatism and gout to the later agents, Hexamethylene and Salicylic Acid, and then to the discovery of Cinchophen, Neocinchophen and their derivatives.

In conclusion Doctor Volwiler stated "These advances along the various lines indicated are significant but they are only the beginning of efforts which must be made. As Fairbrother and Renshaw have pointed out, there are some fifty infective diseases that are important. Of these fifty, the causative agents of twelve have not yet been discovered. Of the remaining thirty-eight, a partially successful curative agent is available in eleven, leaving twenty-seven diseases in which the causative agent is known but for which no specific treatment is available. To these must be added the twelve infective diseases of unknown origin, making a total of thirty-nine. In other words, in only about 20 per cent of the important infectious diseases have we made progress towards cures!"

The splendid record of research chemistry in the past ten years, particularly as it applies to the alleviation and cure of disease, is a development over which the medical profession has cause to rejoice, not only for present achievements but for the great

promise which chemical research, linked with clinical investigation, holds for the future in stamping out the scourge of cancer, tuberculosis and other insidious diseases.

## TETANUS

It is becoming easier than ever before to give a child a hypodermic of Tetanus Antitoxin, now that this biological product has been purified and concentrated to such an extent that 1500 units (the prophylactic dose) resembles nothing so much as a few drops of pure water. Vast improvements have been made in the physical properties of Tetanus Antitoxin since the product was first made available to the profession, and with this improvement in form has gone a constantly increasing use in caring for suspicious wounds.

Doses as high as 20,000 units, for treatment, are now offered, in a volume no larger than that of the 10,000-unit dose of a few years ago; and from this point down to a 3000-unit dose.

See the advertisement in this issue headed "Tetanus Antitoxin (P. D. & Co.)—Potent, Refined, Concentrated". It will well repay perusal.

## BOOK REVIEWS

### THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR

Volume 14; Medical Aspects of Gas Warfare; Prepared Under the Direction of Major General M. W. Ireland, Surgeon General. Government Printing Office, Washington, D. C.

Prior to the World War poison gas in warfare had never been a part of our war armament and not until April 16, 1915, when the Germans made their attack on the Canadians and French at Ypres did the Allies realize the seriousness and danger of the use of gas on a large scale. It was not long until the Allies provided a means of defense followed by a production greatly in excess of the Germans. It is estimated that the German maximum production was fifty tons a day and at the time of the armistice was producing about one-fourth that amount, while the United States was capable of producing one hundred and forty tons a day. At once it became the function of the medical department to devise ways and means of protecting against gas attacks and methods of treatment of gassed soldiers. It had become recognized that gas in warfare had become an extremely important agent. Since the war much discussion has arisen as to the use of poison gas in war from a moral and humanitarian point of view. This point of view is not considered in this volume which is devoted to the history of gas warfare and the effect of poison gas on the soldier, not as an agent in future wars. This volume of 876 pages is devoted to the production of gas by the United States and



the Allies and the part taken by the medical department. As soon as the use of gas had become an important agent in offensive and defensive warfare, the war department determined that the direction of this form of war should become a function of the surgeon general's office and this volume relates the activities of his office.

### HEALTH SUPERVISION AND MEDICAL INSPECTION OF SCHOOLS

By Thomas D. Wood, M.D., College Physician, Adviser in Health Education and Professor of Physical Education, Teachers College, Columbia University, and Hugh G. Rowell, M.D., Physician to Horace Mann Schools, Lecturer and Assistant Physician, Teachers College, Columbia University. Octavo of 637 Pages, with 243 Illustrations. W. B. Saunders Company, 1927. Cloth \$7.50 Net.

This book has a rather wide range of interest to those engaged in school work. Before the nature, cause and spread of contagious and infectious diseases were to any considerable extent known, school sanitation was a comparatively simple matter, limited mostly to personal cleanliness. The control of contagious diseases was largely a community affair. Not before 1874 was a health supervision of schools a matter seriously thought of in the United States, although it appears that health supervision had been taken up in France as early as 1833 and a school physician employed in Sweden in 1868. After the dates above referred to, it began to appear to progressive minds and especially as our knowledge of health matters increased and began to receive legislative attention, that school boards, and those interested in the health of school children traveled as rapidly as the general public would permit in establishing well organized health supervision of schools.

At the present time, the value of such supervision has become so fully recognized that there is no longer need of argument. The only question is of detail and method and for this purpose this book appears. At the present moment the work of school health supervision has become so complex and varied that well trained minds are needed to co-ordinate the accumulated knowledge and experience of the best workers in this field. The authors of this book have brought to us a vast amount of material that may be used by those engaged in this field. It may be objected that school physicians and school nurses go beyond their proper functions and trench upon the field of the family physicians by treating cases that should go to the family doctor, but this objection can be readily overcome by the exercise of tact and discretion. The school physician and the school nurse will find in this book what he should know in his work but should have in mind the need of exercising his own good sense and judgment based on the valuable suggestions so fully set forth.

### ROENTGEN INTERPRETATION

Manual for Students and Practitioners; By George W. Holmes, M.D., Roentgenologist to the Massachusetts General Hospital and Assistant Professor of Roentgenology, Harvard Medical School; and Howard E. Ruggeles, M.D., Roentgenologist to the University of California Hospital and Clinical Professor of Roentgenology, University of California Medical School. Third Edition, Revised, with 226 Illustrations. Lea & Febiger, 1926. Price \$5.00.

Roentgenology has become an established means of diagnosis but it will not operate automatically, in fact the interpretations require most careful study. It is not difficult to operate an x-ray machine but it is difficult to determine what the machine reveals. X-ray treatment is one thing and x-ray diagnosis is quite another. X-ray treatment should not be employed except by roentgenologists who have been carefully trained. The use of the x-ray in diagnosis may be employed by men less trained but the interpretation aside from fractures and foreign bodies is difficult and may be misleading. But the field of x-ray work is so important and so necessary in a well equipped doctor's office that in these days a good x-ray machine should be within the reach of every practitioner and it is not always possible that the operator should be highly trained in roentgenology but he should know his limitations. A book like the one before us is very valuable and necessary unless the practitioner has not access to a well equipped roentgenological laboratory. All that we have said and more is set forth in the introductory chapter.

The anatomical illustrations in chapters two and three are highly interesting and important. The chapters on Syphilis and Nutrition of Bone Tumors are clearly illustrated and fairly easily determined from the study of the text and the illustrations.

This book cannot be too highly recommended for the practitioners for whom it is intended, chiefly for diagnosis. Including those who give much attention to x-ray work the book will be found very helpful.

### THE MEDICAL CLINICS OF NORTH AMERICA

Volume I, Number 2; Octavo of 217 Pages with 16 Illustrations. Per Clinic Year, July, 1926 to May, 1927. Paper \$12.00, Cloth \$16.00 Net. W. B. Saunders Company.

This is a Philadelphia number and is made up of clinics and discussions of leading clinicians. The first is an address delivered before the William Purson Medical Library Association by Dr. David Riesman on the Diagnosis and Treatment of Acute and Chronic Myocardial Weakness. The author considers first the acute phases of circulatory failure and the chronic, taking into account such diseases as typhoid fever or acute pneumonia when the heart fails, and then the chronic heart changes when the

heart fails. This is an interesting clinical study considering the treatment of the several conditions.

An interesting study by Drs. Joseph Sailer and Frank B. Lynch on Backache in Blood-Stream Infection.

Dr. William D. Strond presents The Value of Quinidin Sulphate in the Treatment of Auricular Fibrillation. A study of nine cases is presented. The value of quinidin in heart conditions has been the subject of much discussion.

Another interesting discussion is by Drs. Thomas Klein and Harold R. Keeler on Chronic Arthritis.

---

#### PUBLIC HEALTH BULLETIN NO. 153

A Study of the Top Minnow in its Relation to Mosquito Control; By Samuel F. Hildebraud. Government Printing Office, Washington, D. C.

The purpose of this report is based upon the stocking fishless waters with top minnows for control of the immature mosquito.

---

#### PUBLIC HEALTH BULLETIN NO. 154

Transactions of the Fiftieth Annual Conference of State Sanitary Engineers, 1925.

---

#### PUBLIC HEALTH BULLETIN NO. 155

The Course of Cancer Mortality in the Ten Original Registration States for the Twenty-One Year Period, 1900-1920.

---

#### ILLINOIS IN THE FIFTIES, OR A DECADE OF DEVELOPMENT, 1857-1860

By Charles B. Johnson, M.D.

Dr. Johnson has been in the "Medical Harness" for a period of sixty years. He began as a country practitioner sixty years ago and finally found himself in Champaign, Illinois. Dr. Johnson's relation to the people as a boy and later as a family physician as far back as 1851, gave him an intimate knowledge of the pioneers and the pioneer way of living among the early settlers of the middle section of Illinois. Dr. Johnson was evidently a close and careful observer and he has had the good fortune to pass through the hardships and trials of early days and is able now to relate the experiences of a time and period which has fallen to but few. In these days of hurry, excitement and money getting, many have little time or thought of the days of building, which have brought to them the comforts and luxuries which they now enjoy. But fortunately there are thoughtful people who look back on the trials of their forebears in a spirit of thankfulness for what they did in making possible the comforts and well-being of the present generation.

We congratulate Dr. Johnson on the comfort and enjoyment which it must give him to put so much of early days on the printed page for the generation that must come after him, now, as he approaches the end of a useful and productive life.

#### PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE

By J. J. R. Macleod, M.B., Professor of Physiology in the University of Toronto, Toronto, Canada; Assisted by Roy G. Pearce, A. C. Redfield, N. B. Taylor and J. M. D. Olmsted. Fifth Edition, with 291 Illustrations, Including 9 Plates in Colors. Price \$11.00. C. V. Mosby Company, St. Louis, 1926.

This volume furnishes a pleasing and fascinating correlation of modern biochemistry and physiology to modern medicine. In the present edition the outstanding additions are those dealing with the physiology of the special senses and the neuromuscular system. Striking and timely revision of the sections on blood, respiration, metabolism, insulin and the ductless glands add materially to the usefulness of the volume as a reference work.

While this book was originally intended purely as a guide to the bedside application of the truths of biochemistry and physiology in its present scope it is of great value as a text-book as well. Correlating these important and fundamental sciences in an easily applicable clinical fashion is without doubt a radical departure from the more time honored, but certainly less useful method of teaching these subjects. If the student and clinician can grasp the practical usefulness of physiology and biochemistry in the analysis of case pictures and symptom syndromes in their daily routine of work through the instrumentality of a treatise such as this one, these so-called "fundamental or laboratory sciences" will come into their own and for all time be reclaimed from the dull abstract to the brilliant clinical side of medical education. Too, if the physician can develop a clinical "sense" base upon physical and chemical facts, and carry into the sick room the inductive reasoning of these sciences, logical and accurate diagnoses will be effected and a basically correct therapy result. To the physician who desires to apply the advances made in the field of biochemistry and physiology to his everyday problems of clinical practice this text is unreservedly recommended.

R. R. S.

---

#### PRINCIPLES AND PRACTICE OF CHEMOTHERAPY

With Special Reference to the Specific and General Treatment of Syphilis. By John A. Kolmer, M.D., Dr. P. H., Professor of Pathology and Bacteriology in the Graduate School of Medicine, University of Pennsylvania; 1106 Pages with 82 Illustrations. Philadelphia and London. W. B. Saunders Company, 1926. Cloth \$12.00 Net.

Following the impetus given the newer researches in medical science by the memorable work of Ehrlich, definite and rapid progress has been made in the field of Chemotherapy. Advances have been achieved with such rapidity that but few physicians



are even moderately familiar with them. Their technicalities demand evaluation by the expert scientist trained in chemistry, biology and clinical medicine. The reader of Dr. Kolmer's book is impressed with the fact that the author possesses the rare ability necessary to render his evaluation of this mass of material not only highly useful but also epochal in its interpretation. The volume bespeaks scientific fairness in the review of the pertinent literature and exceptional critical clinical aptitude in its interpretation and application to the problems of practical medicine. The volume justly stresses the experimental but does so without detracting from the practical usefulness of the discussion.

The introductory chapter deals with the fundamental principles of chemotherapy and furnishes a foundation for the more specific discussions which follow. A second part of the book is devoted to the chemotherapy of bacterial and mycotic diseases reviewing the uses of the analin dyes, cinchona derivatives, mercury, arsenic, silver, bismuth and chaulmoogra oil in the treatment of these infections. The detailed survey of the experimental work in the use of selected drugs in the treatment of tuberculosis and streptococcic infections is especially fascinating and useful. In the next section the spirochetal diseases other than syphilis, protozoan and metazoan diseases, are discussed. The consideration of the chemotherapy of malaria, the anemias and malignant tumors is well and not too optimistically presented.

The remaining two sections of the volume, occupying about one-half of the entire page space, are devoted to a most careful and painstaking discussion of the principles and practices of chemotherapy in the treatment of syphilis. Guidance is furnished in the selection of a suitable drug to meet a specific indication and details furnished directing the preparation and method of administration of each drug discussed. Contraindications for the use of certain forms of therapy are considered and untoward reactions reviewed. As a treatise on chemotherapy, this volume is highly recommended as authoritative, concise yet thorough, and entirely unique in this important field of medicine.

R. R. S.

#### EXAMINATION OF CHILDREN, BY CLINICAL AND LABORATORY METHODS

By Abraham Levinson, B.S., M.D., Associate in Pediatrics, Cook County Hospital, Chicago; Attending Pediatrician, Sarah Morris Hospital for Children of the Michael Reese Hospital, Chicago; Attending Pediatrician, Mount Sinai Hospital, Chicago. Second Edition. Eighty-five Illustrations, 1927. The C. V. Mosby Co., St. Louis.

This second edition of this immediately popular work embodies revisions in and additions to practically every section. The same general outline has been followed, as to form, but some needed exempli-

fication of certain procedures has been added and more details of interpretation offered in the more unusual laboratory procedures. A number of useful charts are presented in an appendix which should aid the busy physician in preparing accurate records.

This volume was prepared primarily for the use of the student and the physician. It will be found exceedingly useful by every physician including the care of children in his practice whether specialist or general practitioner. Accurate methods of history taking and physical examination, as applied to children, are appropriately stressed. Special methods for the collection of suitable laboratory specimens are discussed and apparatus described. The evolution of laboratory tests is given special consideration both from the standpoint of their positive value and also their negative worth. The author rightly stresses throughout, the paramount value of skilled physical examination and the relative value of laboratory procedures when properly correlated and interpreted.

He has retained in this edition, the chapters dealing with intubation and tracheotomy, as well as that directing the introduction of fluids into the body.

The concise, sufficiently brief, and exact methods of presentation employed by the author is in itself an inspiration commanding careful consideration of this volume, which when coupled with the evident authoritativeness of each discussion, should insure it hearty welcome by the profession at large.

R. R. S.

#### NEW AND NON-OFFICIAL REMEDIES

Chicago, Illinois, January 29, 1927.

In addition to the articles enumerated in our letter of December 27th, the following have been accepted:

Robert A. Bernhard:

Saf-T-Top Mercurochrome Solution 2 c.c.

Kansas City Oxygen Gas Co.:

Ethylene for Anesthesia (Kansas City Oxygen Gas Co.)

Eli Lilly & Co.:

Erysipelas Streptococcus Antitoxin—Lilly (Concentrated Globulin).

Parke, Davis & Co.:

Antistreptococcus Serum 20 c.c. piston syringe.

Antistreptococcus Serum 50 c.c. piston syringe.

Swan-Myers Co.:

Arizona Ash Concentrated Pollen Extract—Swan-Myers; Crab Grass Concentrated Pollen Extract—Swan-Myers; Goose Grass Concentrated Pollen Extract—Swan-Myers; Mountain Cedar Concentrated Pollen Extract—Swan-Myers; Ox-Eye Daisy Concentrated Pollen Extract—Swan-Myers; Plantain Concentrated Pollen Extract—Swan-Myers; Yellow Fox-Tail Concentrated Pollen Extract—Swan-Myers.

(Continued on Advertising Page xxviii)

*Green Gables*  
 THE  
 DR. BENJ. F. BAILEY.  
 SANATORIUM  
*Lincoln, Neb.*

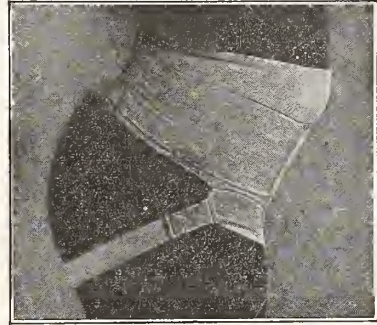
This institution is the only one in the Central West with separate buildings situated in their own ample grounds, yet entirely distinct and rendering it possible to classify cases. The One Building being fitted for and devoted to the treatment of non-contagious and non-mental diseases, no others being admitted. The Other, Rest Cottage, being designed for and devoted to

THE EXCLUSIVE  
 TREATMENT OF SELECT MENTAL  
 AND NERVOUS CASES

requiring for a time watchful care and special nursing.

*Send For Illustrated Pamphlet*

Trade-Mark Registered **STORM** Trade-Mark Registered  
**Binder and Abdominal Supporter**  
 (PATENTED)



Trade-Mark  
 Registered

Trade-Mark  
 Registered

**For Men, Women and Children**

For Ptosis, Hernia, Pregnancy, Obesity, Relaxed Sacro-Iliac Articulations, Floating Kidney, High and Low Operations, etc.

Ask for 36-page Illustrated Folder

Mail orders filled at Philadelphia only—  
 within 24 hours

**Katherine L. Storm, M. D.**

*Originator, Patentee, Owner and Maker*

**1701 DIAMOND ST.**

**PHILADELPHIA**

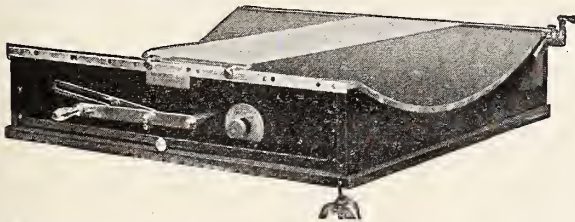
**SAVE MONEY  
 ON YOUR X-RAY SUPPLIES**

Get Our Price List and Discounts Before You Purchase

WE MAY SAVE YOU FROM 10% TO 25%  
 ON X-RAY LABORATORY COST

Among the Many Articles Sold Are

X-RAY FILM, Duplitzed or Dental, Eastman, Superspeed or Agfa Film. Heavy discounts on standard package lots. X-Ograph, Eastman, Justrite and Rubber Rim Dental Film, fast or slow emulsion.



**BRADY'S POTTER BUCKY**

DIAPHRAGM insures finest radiographs on heavy parts, such as kidney, spine, gall-bladder or heads.

Curved Top Style—up to 17x17 size cassettes.....\$250.00  
 Flat Top Style—holds up to 11x14 cassettes..... 175.00

DEVELOPING TANKS, 4, 5 or 6 compartment stone, will end your dark room troubles. Ship from Chicago, Brooklyn, Boston or Virginia. Many sizes of enameled steel tanks.

INTENSIFYING SCREENS—Patterson, T. E., or Buck X-Ograph Screens for fast exposure alone or mounted in Cassettes. Liberal discounts. All-metal cassettes. Several makes.

*If you have a machine have us put your name on our mailing list.*

**GEO. W. BRADY & CO.**

**779 So. Western Ave., - Chicago**

**RADIUM  
 RENTAL SERVICE**

BY

**THE PHYSICIANS RADIUM  
 ASSOCIATION of CHICAGO, Inc.**

Incorporated under the laws of Illinois, not for profit, but for the purpose of making radium available to Physicians to be used in the treatment of their patients. Radium loaned to Physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

*Careful consideration will be given inquiries concerning cases in which the use of Radium is indicated.*

**THE PHYSICIANS RADIUM ASSOCIATION**

**1105 Tower Bldg., 6 N. Michigan Ave.  
 CHICAGO, ILL.**

Telephones:

CENTRAL 2268-2269

Managing Director:

WM. L. BROWN, M.D.

**BOARD OF DIRECTORS**

William L. Baum, M.D.

Wm. L. Brown, M.D.

Frederick Menge, M.D.

Walter S. Barnes, M.D.

Louis E. Schmidt, M.D.



## NEW AND NON-OFFICIAL REMEDIES

(Continued from Page 222)

Chicago, Illinois, February 26, 1927.

In addition to the articles enumerated in our letter of January 29th, the following have been accepted:

Eli Lilly &amp; Co.:

Ricinoleated Antigen, Scarlet Fever, Immunizing—Lilly.

National Aniline &amp; Chemical Co.:

Tablets Gentian Violet Medicinal—"National", 0.0324 Gm. (1½ grain).

Enteric Coated Tablets Gentian Violet Medicinal—"National" 0.0324 Gm. (½ grain).

Parke, Davis &amp; Co.:

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., 0.5 Gm. (¾ grain), 1 cc.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., 0.10 Gm. (1½ grains), 1 cc.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., 0.13 Gm. (2 grains), 1 cc.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., 0.20 Gm. (3 grains), 1 cc.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., 0.3 Gm. (5 grains), 1 cc.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., 0.45 gm. (7 grains), 1 cc.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., 1 Gm. (15 grains), 2 cc.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., (For Intravenous Use) 0.20 Gm. (3 grains), 5 cc.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., (For Intravenous Use) 0.45 Gm. (7 grains), 5 cc.

Glaseptic Ampoules Sodium Cacodylate—P. D. & Co., (For Intravenous Use) 1 Gm. (15½ grains), 10 cc.

Swan-Myers Co.:

Cosmos Concentrated Pollen Extract—Swan-Myers; Dandelion.

Concentrated Pollen Extract—Swan-Myers; Palmer's Amaranth.

Concentrated Pollen Extract—Swan-Myers.

The United Laboratories:

Culture Bacillus Acidophilus—United Laborator-

Nonproprietary Articles:

Ricinoleated Scarlet Fever Antigen.

Chicago, Illinois, March 28, 1927.

In addition to the articles enumerated in our letter of February 26th, the following have been accepted:

Abbott Laboratories:

Abbott's Mineral Oil Emulsion.

Ephedrine Hydrochloride—Abbott.

Eli Lilly &amp; Co.:

Ephedrine Sulphate—Lilly—

Pulvules Ephedrine Sulphate—Lilly, 0.025 Gm.

Pulvules Ephedrine Sulphate—Lilly, 0.05 Gm.

Ampoules Ephedrine Sulphate—Lilly, 1 c.c., 0.05 Gm.

Solution Ephedrine Sulphate—Lilly, 3 per cent.

E. R. Squibb &amp; Sons:

Scarlet Fever Streptococcus Toxin—Squibb, 1 c.c.

Towt-Nolan Laboratory:

Lactobacillus Acidophilus Milk (Towt).

Nonproprietary Articles:

Ephedrine.

**READ THIS!!!**

Make your plans to attend the annual meeting of the MEDICAL SOCIETY OF THE MISSOURI VALLEY at Des Moines, September 14th, 15th and 16th. For further information consult the Medical Society news in this issue.

"1000 MEMBERS IN 1928"

**The Wilgus Sanitarium**  
**ROCKFORD, ILL.**

Mild mental and nervous conditions including those due to drugs and alcohol. Long Distance, Rockford, Main 3767, and reverse the charges.

**DR. SIDNEY D. WILGUS**, formerly superintendent Elgin and Kankakee State Hospitals; **DR. EGBERT W. FELL**, late Physician Boston Psychopathic Hospital, recent Laboratory Chief Elgin State Hospital.

**The HINSDALE**  
**SANITARIUM**

HINSDALE, ILLINOIS

(On C. B. & Q. Ry., only forty minutes ride from the Union Station in Chicago)

Located in the heart of an eighteen acre tract of virgin forest in one of Chicago's restricted, residential suburbs. Electro and Hydro-therapeutic treatment—150 outside rooms. Modern facilities. Operated strictly within ethical lines. Rates moderate. Write for free booklet and rate schedule.

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, JULY, 1927

No. 7

## ADDRESS OF HUBERT WORK\*

Secretary of the Department of the Interior

May I speak of the Interior Department's activities in the field of medicine, educational, preventive, and in the application of medical and surgical relief.

The Department of the Interior is also a widespread medical activity of the government, which carries out its health activity from the frozen fastnesses of the north by means of a floating hospital on the Yukon River in Alaska to the medical care and treatment of the Seminole Indians in the subtropical Everglades of Florida; from its magnificent institutions of research, education, remedial care and disease prevention on the east in Washington, D. C., to the semi-tropical shores of the Hawaiian Islands on the west.

Between these widely divergent points, the many and varied activities of this department, all encompassed under the general head of medicine, are almost startling in the breadth of their scope and in the means by which they are carried out. They vary from its group of massive institutions in Washington: Howard University, the national university of the negro race in America with its very complete medical college; Freedmen's Hospital, the center for the training of colored physicians of America and for the diffusion of knowledge of hygiene among the colored race of this country; Columbia Institution for the Deaf, where the most advanced methods in the education and training of deaf children are utilized; St. Elizabeth's Hospital, where research by clinic and laboratory, where instruction and training in the problems of psychology, neurology, and pathology of mental diseases, and where studies in mental hygiene and allied subjects are given attention; to the wonderful National Park system of this country, where safeguarding the health of millions of visitors is an urgent problem; to the Geological Survey, where studies and advice on ground waters of the United States for domestic and other pur-

poses are made; to the Bureau of Pensions, with its staff of medical examiners numbering 4,500, which provides examinations for thousands of war veterans, wherever they may be found.

The trained nurses of this department carry out their missions of mercy under the shadow of the totem pole in the far north; the field matrons, nurses, and doctors of the Indian Bureau afford relief from sickness, teach hygiene of person and sanitation of home within hearing of the incantations of the Indian medicine man. Its medicines and serums are carried by dog sled, by canoe, by aeroplane and by the ubiquitous Ford.

Comprising the Department of the Interior are six bureaus and offices, two territories, four eleemosynary institutions, a great national park system and a railroad. Of these fourteen activities of the department, twelve have in part, or very largely, very definite medical activities of some character.

Surveying briefly the many diverse medical functions of this department, we find that the Geological Survey makes investigations of ground water supplies for domestic use, for hospitals, for various states, counties, and municipalities, as well as investigations and reports upon the quality of these water supplies.

The Alaskan Railroad operates a base hospital at Anchorage, Alaska, where during the past fiscal year 1,200 patients were treated, 260 surgical operations were performed, and 7,973 hospital days relief given.

Our Bureau of Education makes investigations of the status of physical education and hygiene in American colleges; of educational and recreational features of summer camps; of the health of teachers of this country with reference to longevity, absence on account of illness, conditions affecting health, etc.; assists in campaigns with the National Congress of Parents and Teachers to send children to the first grade of school free from disease and physical defects. This bureau is responsible, also, for medical relief to the natives of Alaska, and in this work maintains six hospitals, one on the water, which

\*Address before the Medical Society of Hawaii, April, 1927.



cruised 2,200 miles on the Yukon River during the past season of navigation, with its eight physicians and twenty-two nurses. In 1926, 12,434 home visits were made among these native people, 11,147 patients were treated, 34,846 treatments were given and 6,989 days of hospital care provided.

The Bureau of Pensions has on its rolls a half million veterans of the various wars in which this country has been engaged. A large proportion of claims from these beneficiaries require physical re-examinations and a medical rating board to review such claims. This work is done by this bureau of the Interior Department. Its archives, some six millions of files, are veritable store-houses of not only valuable historical data, but genealogical and anthropological information as well.

The two territories under this department, Alaska and Hawaii, through their territorial boards of health carry out the usual health measures incident to the prevention and control of reportable diseases, vital statistics, sanitation, etc., to which the department has access.

The territorial board of health of Hawaii has a more centralized control of these activities and has to do, as you know, with sanitation, medical inspection of schools, pure food regulations, tuberculosis, leprosy, the operation of hospitals, vital statistics, etc.

The National Park Service administers 19 national parks and thirty-two national monuments visited by more than two and a quarter million people last year. These recreational and educational playgrounds of America, in area cover more than 15,000 square miles, almost 10,000,000 acres in extent. Safeguarding the health of the millions of visitors to these wonder lands is one of the important functions of the National Park Service, and to this end safe water supplies, sanitary conveniences, properly controlled camping grounds, sewage facilities, mosquito control, and hospital services are provided.

The Columbia Institute for the Deaf, while primarily an educational institution, conducts studies with reference to the hearing of deaf or partially deaf pupils, and to the combining of the senses of touch and sight as aids in the understanding of speech.

Howard University—the National University for the colored race, “the capstone of negro education”,—with more than 2,000 in its student body representing thirty-seven states and eleven foreign countries, conducts schools of medicine, dentistry and pharmacy—a class A institution—

whose graduates practice in many states and give professional attention to our colored population.

Freedmen's Hospital, established in 1862, is now a prime factor in the training of colored physicians and in the diffusion of a knowledge of hygiene among colored people of this country. This hospital, covering an area of four city blocks in buildings and grounds, with Howard University in the background, extends its services to the indigent residents of the District of Columbia, to residents of the several states, to emergency cases, and others. During the past fiscal year, 4,431 patients were treated, 2,030 surgical operations were performed, 2,050 anesthetics were administered, 19,262 patients received dispensary treatment, and 124,041 hospital days relief were given. This hospital also conducts a school for nursing for the benefit of the young women of the negro race, and this past year graduated twenty-two nurses, making a total of 423 young colored women holding nurses' diplomas from this school.

St. Elizabeth's Hospital, devoted to the treatment of patients from the District of Columbia, and of present and former members of the military and naval services who are suffering from mental diseases, treated 5,114 patients during the past fiscal year and gave to these patients 1,607,095 hospital days relief. Its patients were representatives of seventeen races from thirty-two separate countries; in ages varying from under fifteen years to more than seventy years, and with all variations in types and kinds of mental alienation.

St. Elizabeth's Hospital for government insane also conducts a strictly medical and surgical service for somatic conditions, a training school for nurses, instruction courses to students of the Army and Navy Medical Schools, George Washington, Georgetown and Howard Universities, and in addition to its many allied clinical and laboratory facilities, carries out extensive research having to do with problems of organic lesions, the cause of, or associated with, mental diseases. Lectures on hygiene and educational problems in connection with mental disorders are also given to various welfare, parent-teacher and other organizations. The publications of this institution are of high standing in the scientific and medical world. It is an outstanding comprehensive graduate medical school.

The Indian Bureau in its medical activities extends medical and surgical care and relief to approximately 225,000 Indian wards of the government out of a total Indian population of this country of about 350,000 persons, exclusive of

Alaska. It safeguards the health, and by precept and example teaches health and sanitation to almost 65,000 Indian school children in its 207 day schools and boarding schools scattered over the Indian reservations.

Its field matrons and field nurses visit tepees, hogans, wickiups, and Indian homes of whatever character, to instruct in disease prevention, the sanitation of the home and personal hygiene. Its physicians conduct a rural practice among these Indian reservations where such Indians are unable or unwilling to accept medical care in the hospitals provided for their use. It is significant that year by year an increasing number of Indian babies are born in Indian Service hospitals.

The Indian Bureau also operates sanatoria and sanatorium schools, the former for the advanced cases of tuberculosis and the latter for the incipient cases among school children. It has a group of special physicians who travel from reservation to reservation where those suffering from trachoma, a veritable scourge among the Indian population of this country, may be treated. During the fiscal year past, more than 30,000 Indian patients were treated in the ninety-one hospitals of this bureau and 523,599 days of hospital relief were given. In the past two years, 36,218 Indians suffering from trachoma have been treated by surgical or medical procedure. This bureau has more than 120 full-time field physicians, sixty-four part-time physicians, ten special physicians, seven dentists, 138 nurses and thirty-seven field matrons engaged in this work. The Indian Medical Service has been reorganized with trained physicians assigned from the United States Public Health Service who officer the key positions of this service.

Summarizing briefly, there are conducted under this department more than 100 hospitals in which were provided during the past year 2,269,697 days of hospital relief; it teaches preventive medicine, extends relief, etc., to almost a quarter of a million of primitive people of this country; carries on researches into the causes of diseases of man; teaches the blind; enlightens the ignorant; safeguards the health in play and work of millions of our people in their daily life.

In these functions, it works in close cooperation with local, county, state, federal and voluntary health organizations throughout the country, whose aid and assistance have contributed in no small part to the results so sketchily outlined here. In cooperation with other agencies, the Red Cross has provided nurses and nutrition workers; associations interested in the welfare of the Indians have provided services of various

character; in states where there are large Indian populations, their health agencies have and are working in health matters affecting Indians; religious organizations, women's clubs, etc., have contributed their great part; the Veterans' Bureau and state laboratories have been made available, and the United States Public Health Service has in very large measure made available both its facilities and its personnel. Such cooperation and services are here gratefully acknowledged.

The Interior Department has been described as "The fact finding department for internal development"; "A Federal University for the People"; its mission is largely educational with many of its activities devoted to the discovery and dissemination of knowledge; with a curriculum covering many fields of learning and its "faculty" including hundreds of scientists, specialists and professional men; its "student body", the people of the United States.

It is fact finding, in that it searches out the presence of sickness, malnutrition, and insanitary conditions and distress and poverty among the primitive peoples of this country with the purpose of curing such disease, eliminating such insanitary conditions and relieving the distress and poverty by the application of remedial measures both with respect to disease conditions and in the building up of a better economic status among these people. Its nurses, its doctors, its matrons, its skilled specialists are teaching preventive medicine as well as curative medicine to the thousands of beneficiaries of our government through this Department.

In the Interior Department medicine has come to mean the practice of theories of health which have been proven by experience, together with the art and science of curing the sick.

---

#### FIVE RECENT CASES OF SHOE DYE POISONING

---

HENRY ALBERT, M.D.—JAMES WALLACE, M.D.  
State Department of Health

The attention of the Iowa State Department of Health has recently been directed to a number of cases occurring within the state of poisoning through the wearing of newly dyed shoes.

Poisoning through dyed shoes is no new discovery. In the American Medical Association Journal of June 27, 1925, C. W. Muehlberger, Ph.D., state toxicologist for Wisconsin reviewed the medical literature on forty-seven cases of poisoning from this source, and in the same Jour-



nal of date March 27, 1926, Dr. A. J. Patek of Milwaukee refers to sixty-one reported cases. Since that date there have been references in the newspapers to a number of cases occurring within the last year.

During the last few weeks at least five cases have occurred within this state and the Health Department has had the opportunity of investigating four of them. The fifth case had changed his residence so that he could not be located and personally interviewed but his history, so far as could be obtained, was similar to the others.

Of the four cases on whom it was possible to get definite reports it was found that their histories corresponded very closely to those cases of poisoning previously described in the medical literature as due to anilin or nitrobenzene. The history of all these cases was in general that shoes or boots had been dyed and worn very shortly after the dyeing was done. In one case the dye was applied to the shoes while they were on the owner's feet, hence it is a good rule "Not to dye with your boots on". Another case wore his shoes about one and one-half hours after they were dyed and kept them on continuously for about sixteen hours, while the third case claimed that about thirty-six hours had elapsed from the dyeing of the boots until he wore them, the fourth case wore the boots about seventeen hours after the dye was applied.

The dye used in all the cases investigated was a product of a chemical company in Milwaukee. It was evidently presumed that the dye had some poisonous properties as the label on the bottle stated that the dyed boots should not be worn for at least twenty-four hours after being dyed. The histories of the cases observed confirmed the observations of Gautrelet as quoted by Muehlberger, viz.; that the coloring matter of the dye was not the source of the poison, because there was no discoloration of the patients' feet. The poison seems to be contained in the solvent of the dye, not in the dye proper. This solvent is fairly volatile and if given time will disappear.

The general history of all these cases was that after wearing the dyed shoes for from four to six hours the person became faint and began to be cyanosed. The cyanosis was first noticed around the finger nails, the lips and in the ears; headache, dizziness and anorexia ensued accompanied in some cases by vomiting. Irritation of the kidney usually followed, with albumen, and in some cases, blood in the urine. In one case the hematuria continued for four days and the albuminuria was still well marked at the end of a

week. The temperature remains normal but the pulse is considerably or even markedly accelerated and some cases complain of shortness of breath.

There seems to be no definite recognized line of treatment except to prevent further absorption of the poison by removing the shoes as soon as the case is discovered and by washing the feet to make sure that no further absorption of poison takes place. The kidneys have to be relied upon for the excretion of the poison and the load on them should be made as light as possible by putting the patient to bed and keeping him warm. The patient should have plenty of fresh air. The administration of oxygen where it has recently been tried has some effect even though not marked on the cyanosis and it has greatly relieved the headache and the general discomfort of the patient. It may be found necessary to stimulate the patient, but in general the main factor in treatment is to aid the kidney in its excretory processes, without adding to its irritation.

Cases of shoe dye poisoning can be readily prevented and as it is now possible to produce a dye that is non-toxic, only dyes of this character should be allowed on the market. If, on the other hand toxic dyes are to be continued on sale two precautions must be taken. (1) Where shoes are left at a shop to be dyed, the shopkeeper should never return the shoes to the customer until sufficient time has elapsed so that all toxic substances have evaporated, say not before seventy-two hours. (2) All bottles of the dye should be labeled and a notice of "poison" should appear on the label, and in large letters there should be stated that shoes dyed with the contents of the bottle may remain poisonous for the wearer for as long as three days, and are therefore not to be worn before the expiration of that time.

A report, dated March 5, 1927, on the dyes manufactured by the firm referred to, from the Wisconsin state toxicologist states that it is apparently the vapors of the poisonous solvent rather than the liquid solvent that are responsible for the poisonings. The dye in question contained ortho-toluidine and the toxicologist's opinion is that 30 per cent ortho-toluidine is non-toxic. The manufacturing firm claims in a letter dated April 29, 1927 that on September 1, 1926, they began putting only 30 per cent ortho-toluidine in their dye and that now they have further reduced the proportion to 20 per cent. The manufacturing firm claims that any poisonings from the use of their dyes have occurred from the use of dye put on the market before September 1, 1926.

Those shoe dyes for which non-toxicity is claimed should, if they are actually so, bear on the label a certificate from the state chemist of the state where they are manufactured certifying to the non-toxicity.

A brief case history of the most severe of all the five cases is submitted by courtesy of Major Thos. L. Ferenbaugh of Fort Des Moines.

E. J. M., age twenty, trooper, had shoes dyed by dye manufactured by Milwaukee firm referred to. Shoes dyed 2:30 p. m., put on at 4 p. m. and worn through night, as wearer went on night duty. At 10 p. m. wearer felt faint and weak and fingers became cyanotic around nails. Next morning patient nauseated, vomited, had headache, anorexia, weakness and marked cyanosis of fingers, lips and ears and even of the face, blood-pressure systolic 108, diastolic 75. On the third day similar symptoms continued with pain on urination and hematuria; temperature was subnormal from the first. Till the sixth day, the symptoms continued, with some improvement and gradual cessation of the hematuria. At the end of a week urinalysis still showed marked albuminuria, but during second week patient showed great improvement and by the end of that week was almost completely recovered.

Des Moines, Iowa, May 2, 1927.

## SCARLET FEVER PREVENTION BY BIOLOGICALS\*

DON M. GRISWOLD, M.D., D.P.H.

Professor of Hygiene and Public Health, State University of Iowa

When the infectious agent of scarlet fever was isolated and a soluble toxin extracted therefrom, a tremendous stride was made in our knowledge of the prevention and treatment of this disease. The application of these facts is already being utilized in the fight against scarlet fever and with new discoveries that are bound to come, on the basis of this great achievement, scarlet fever can be relegated to a position of minor importance in health matters.

The toxin of this infectious agent is used in three ways: First, for the Dick test; second, to stimulate active immunity; third, to stimulate the production of immune bodies in the horse, so these can be administered to human cases of scarlet fever.

The Dick test is administered by technic similar to the Schick test, but my own experience is that I have not been able to develop the same degrees of accuracy that has been achieved with the Schick test. The Dick test should be read in from twenty-two to twenty-four hours. The

time limits of the optimum time of reading being quite narrow. The reactions are not quite as clear-cut and distinct as the corresponding Schick test.

In reading and interpreting the Dick test, one must always lean very liberally toward the side of calling questionable reactions positive and advising immunization. Such questions as whether the Dick test is a test for skin sensitiveness to scarlet fever toxin, or a test of the immunity against the disease, is receiving attention and no doubt more light will be shed on this question in the near future.

That a small proportion of Dick negative people do develop scarlet fever has been the experience of several careful workers. Our practice has been to use the Dick test, more or less, as we do the Schick test, in that we consider all children under high-school age who have not been known to have the disease, as susceptible to the disease, and immunize them.

If testing of any kind is indicated we do the Schick test or the Dick test, as the case may be, at some later time, usually three to twelve months, and if the child gives a positive Schick or Dick test, the immunization procedure is repeated.

We have used this procedure in the child-caring institutions of our state with marked success, and these institutions now use it as a standard practice in diphtheria. The practice is to immunize all children with toxin-antitoxin on entrance, and the first of September each year, to use this test for immunity to identify those individuals who are not made immune by the usual dosage of the antigen, and then to give them the advantage of the second series of inoculations. The administration of this second series of inoculations with toxin-antitoxin has developed immunity to diphtheria in all persons.

For scarlet fever immunization we have been recommending that 45,000 skin test doses of the toxin be given in five inoculations of intervals of one week. This is considerable more of the antigen than was given at first.

More recent investigation seems to indicate that for such purpose as we have used this antigen, a dosage of 65,000 to 90,000 skin test dose should be used. If more than 500 skin test doses are given to a person who has never received this material, a small number will develop a sore throat, a temperature, and a slight scarlet rash. These symptoms subside usually within twenty-four to forty-eight hours and are of no importance, except that inasmuch as these are the cardinal symptoms of scarlet fever, we lay ourselves

\*Read at the Kansas School for Health Officers, Topeka, Kansas, April 11, 12, 13, 14, 1927.



open to being accused of causing the disease that we are trying to prevent. If any further proof was necessary that the proper toxin had been isolated, here is the proof. What the patient really has is a very mild, controlled, non-infectious scarlet fever, and the patient is reacting to the specific toxin of the disease and of course reacts in a characteristic and classical way. But as long as the patient does not harbor the living infectious agent, quarantine is not indicated.

If we are to avoid these few reactions, the first dose of this antigen must be 500 skin test doses or less. The dosage of the antigen should be increased at each successive inoculation so that the total dosage of 65,000 to 90,000 skin test doses can be given in five inoculations. There is no reason why the sixth or seventh inoculation could not be given if it should be found desirable, but it has not been found necessary in our experience up to the present time.

Our experience with recineolated antigen is too limited to make comments of any value. We have used it in a number of immunizations. The Dick test in some of these individuals became negative in a comparatively short time. Whether these Dick tests will remain negative or whether they indicate a permanent and lasting immunity to scarlet fever are questions which time and greater experience will probably answer.

The third use of this toxin is to stimulate horses to produce an antitoxin which can be used for the treatment of this disease. For this purpose it is used only by the large biological manufacturing houses where the resulting antitoxin is carefully standardized and sold to the profession.

This antitoxin is valuable and can be utilized as a test, as a preventive method, and as a treatment. As a test, small amounts can be introduced in the skin, where a rash of a questionable nature is present.

If the rash is due to a scarlet fever toxin, the toxin present is neutralized by the antitoxin and a definite blanching occurs. This has been called the Schultz-Charlton reaction, and is very useful at times in determining the true nature of the skin rash.

The use of this antitoxin to establish passive immunity under circumstances comparable to the use of diphtheria antitoxin for persons exposed to the disease, is sound practice. However, the most distressed urticarias that it has been my misfortune to see, have followed this use of scarlet fever antitoxin. These distressing incidents have happened in far greater proportion of cases in my own experience than it has been my misfortune to have with the use of diphtheria anti-

toxin. I have been assured by certain manufacturers that their scarlet fever streptococcus antitoxin is purified by the same method as their diphtheria antitoxin, and in theory, should give no more untoward results than with diphtheria antitoxin. Unfortunately this has not been my experience.

The immunity granted by inoculation with scarlet fever streptococcus antitoxin holds for a comparative short time, and as quarantine is occasionally from five to six weeks, certain persons immunized in this way, will develop the disease in the quarantine. This occurrence necessitates certain embarrassing explanations which should be avoided if possible. Two cases of this kind came to my attention last week. Both of these patients developed scarlet fever while in quarantine with a patient, three weeks after they had been given the usual dose of scarlet fever streptococcus antitoxin. Evidently they had eliminated the antitoxin within the quarantine period and were again susceptible.

In speaking of the therapeutic use of scarlet fever antitoxin, I can hardly use words to give sufficient praise. Severely ill, toxic cases of scarlet fever responds almost like magic to the administration of adequate doses of scarlet fever streptococcus antitoxin. The toxin is evidently neutralized very quickly and the patient shows the effect of this treatment within a few hours. The change in severely ill cases, in twenty-four to forty-eight hours, after adequate doses, is one of the most striking things in modern medicine. Moderately severe cases do not show such striking change, but they are protected against the effects of the toxin. Mild cases have in the past almost uniformly recovered and complications have been few. The use of any antitoxin in cases without real toxemia as a factor in the pathologic process, is not particularly indicated.

Several new problems in scarlet fever control present themselves as a sequel to these new discoveries. One of the questions most frequently asked of the administrative health officer is the shortening of the quarantine period in cases of recovery so promptly after adequate dosage of these biological products. I have seen no evidence that the infectious period is shortened by the use of scarlet fever streptococcus antitoxin. All state and local health officers would be delighted to maintain a shorter minimum quarantine period, and probably will do so, when scientific evidence is available that the present minimum quarantine period is too long.

Two cities are now taking throat cultures of all cases of scarlet fever when they are released

from quarantine. These are being studied in our laboratory to determine how a throat culture will be of assistance in determining the length of a scarlet fever quarantine.

Another change that we will see due to the practice of giving scarlet fever antitoxin is the recurrence of second cases of scarlet fever in the same individual in greater numbers than in the past.

This will probably come about as it has in diphtheria, because the patient that is protected by antitoxin is not stimulated to produce antibodies of his own, and likewise becomes susceptible again after eliminating the antibodies administered as antitoxin.

Another question that arises is that of immune carriers. If we make a large proportion of the population immune to scarlet fever, will we not increase the number of immune carriers in the community? It seems to me that this would be inevitable. Although this has happened in our diphtheria work, it is evident that where toxin antitoxin programs are carried out that the incidence of diphtheria is falling. The true significance of the immune carrier in the community is not a matter that is well understood. It can at least be considered of little concern to those parents who follow our advice carefully and have their children immunized against diphtheria and scarlet fever.

## GENERALIZED VACCINIA\*

CORWIN S. CORNELL, M.D., Knoxville

**Case Report**—W. W., age four and one-half years, male.

A. Immediate Complaint—Eruption of skin appearing first on the abdomen, followed in succession by lesions on chest, back, scalp, face and extremities.

B. History of Complaint—The second week in October this child was vaccinated for small-pox with State Board of Health vaccine. There was no take. The procedure was repeated at weekly intervals for four successive weeks with no results. At the time of the third vaccination the child's mother who had not been previously immunized was also vaccinated for control purposes. She also failed to react to either her first, second or third inoculation; corresponding to the child's third, fourth, and fifth.

Vaccine virus was used from three different packages, each of the first two packages bearing the expiration date November 27, 1926, and the third December 1, 1926. Trying to adhere to the old adage of perseverance conquering all obstacles, November

11th a fresh package of virus (the fourth), date of expiration January 1, 1927, was opened and the child was vaccinated for the sixth and the mother for the fourth time. The following day or November 12th the mother advised that the child had "a pimple or two on his abdomen" and that they seemed to itch intensely. November 13th, the child was seen. The following is the physical examination at that time.

1. General Inspection.—Child did not look sick, on the other hand was active and wanted to play.

2. Temperature 98.6°, pulse 80.

3. Head.—Discrete papular eruption over forehead. Some lesions in the scalp and on the neck.

4. Chest and abdomen showed the same discrete lesions as the head, i. e., papules, while the oldest lesions on the abdomen showed vesicle and pustular formations. The lesions were deep and shot like.

5. Extremities showed the same lesions as above mentioned.

The disease ran an uneventful course with complete recovery in a week. The mother reacted to the last vaccination, having a normal local vaccinia.

## DIFFERENTIAL DIAGNOSIS

The classification of skin diseases associated with vaccination as published by Schamberg affords the best differential diagnosis. His classification is as follows:

1. Eruptions attributable to the vaccine virus pure and simple.

A. Local. (1) Normal vaccinia. (2) Erythematous dermatitis.

B. Constitutional. (1) Generalized vaccinia. (2) Diffuse vaccine erythema.

2. Eruptions attributable to mixed infection at time of vaccination or later.

A. Local. (1) Erysipelas. (2) Impetigo, etc.

B. Constitutional. (1) Syphilis. (2) Tuberculosis, etc.

3. Eruptions sometimes following vaccinations. (1) Eczema. (2) Psoriasis, etc.

## DIAGNOSIS

We have, I believe, here to consider only one condition and that is (1) spontaneous generalized vaccinia. The literature on the subject is rather meagre and abbreviated, but all authorities are agreed that it is an extremely rare condition. The text-book description from Schamberg in brief is as follows: "The eruption appears usually from the fourth to the tenth day after vaccination and most often from the sixth to the ninth day".

"The lesions appear in successive crops and pass through the stages of papule, vesicle and pustule. The eruptive lesions being of different age may be seen in varying stages of development. Complete subsidence of the efflorescence usually occur before the twenty-first day. The

\*Presented before the Marion County Medical Society, April 27, 1927, Knoxville, Iowa.



lesions may be few or numerous and may appear upon any part of the body surface. Fever is absent in some cases and present in others, usually being proportionate to the extent of the eruptions, particularly glandular enlargement. Generalized vaccinia may present a considerable resemblance to variola. It may usually be distinguished by absence of an initial stage, its occurrence after vaccination, the appearance of the eruption in crops and the irregular distribution of the lesions."

The British Medical Journal of October 18, 1924, page 717, gives a case report which is quite similar to the one in question. It reads as follows:

E. W. J., general laborer, age forty-four, was admitted as a case of recurrent melancholia to the Kent County Mental Hospital on July 23, 1924. On July 27 vaccination was performed on the right arm in the region of the insertion of the deltoid. On the morning of August fourth four pale papules appeared. Surrounded by a reddish area which duly became umbilicated purulent vesicles on August 6th, accompanied by considerable swelling and inflammation of the whole limb. In the evening of this (the eighth day after vaccination) a distinct vaccinia rash appeared on both arms, the temperature rose to 102° and the patient complained of nausea and headache. By midnight the rash extended to the whole of the body excepting the face and the temperature (axillary) registered 103.4°. The pulse rate was 90 and respirations 20. No enlargement of glands could be felt. On the following morning the temperature fell to 100 and the rash began to disappear; in the evening the temperature was 98.4°. There has been no further pyrexia nor reappearance of the rash.

Dr. Don Griswold, state epidemiologist, has this to say on the subject of generalized vaccinia. "These cases are quite rare but do happen occasionally. Those that have come to my notice have been nothing but a macular rash that lasted from eighteen to twenty-four hours."

"The calf virus used for vaccination has to be attenuated by storage in glycerine for from three to six months. This storage reduces the virulence to a point where nothing occurs but the local reaction except in about one case out of a million. Once in a while a little virus which has not been attenuated thoroughly will get into the circulation. Nothing serious ever comes of it but it sometimes disturbs parents who may be on the verge of being anti-vaccinationists."

#### REFERENCES

- British Medical Journal, October 18, 1924, page 717.  
 Personal letter, Don M. Griswold.  
 American Journal Disease of Children, pages 735-752.  
 Schamberg: Diseases of Skin and Eruptive Fevers, pages 460-462.

## THE GENERAL PRACTITIONER'S SERVICE TO MEDICINE\*

J. McDANNELL, M.D., Nashua

The question is often asked whether the modern tendency toward specialism and group medicine will not before many years do away with the general practitioner—the "family physician" or "old country doctor" whose services has done so much for medical science.

John McLaren Watson, familiarly known as "Ian Maclaren", in his book "Beside the Bonnie Briar Bush", has painted a word picture of the doctor of the old school which will remain a classic for all time. That portrait may be somewhat idealized, but none can deny that in its main features it faithfully represents the devotion to ideals which has characterized the general practitioner of the past.

In the slow development of scientific medicine, the general practitioner has served his fellow men with the greatest devotion and self sacrifice. The history of epidemics show that he has been worthy of the highest honor. Frequently he has made contributions of the highest value to science. In the record of the slow progress from the marshes of ignorance and superstition to the uplands of knowledge and science, he bears a conspicuous and honorable place.

The art of medicine is as old as the need of mankind for relief from injury and disease. The science of medicine has been a gradual growth based upon organized knowledge derived from experience in its practice. By no means all the best work in medicine is accomplished by the busiest or most celebrated practitioners. As Havelock Ellis has said, "where there is most labor there is not always most life, and by doing less, provided only he has known how to do it well, the artist may achieve more". To make a practical application of this statement, the physician who counts is not always the one who is doing the most work, but the one who is doing most of the best work.

Above all men the physician needs the philosophical spirit, the love for learning, the worship of true knowledge. Upon these attributes is founded the cool, temperate, rational judgment, combined with the desire to search into the reason and nature of things, which are the essentials of the physician's make-up.

In the practice of medicine today, there is much of the heritage of the past, of traditions that have become loved and respected by all, and

\*Presented before the Austin Flint-Cedar Valley Medical Society, July 13, 1926, Fort Dodge, Iowa.

which are essential to the very existence of the medical art. Without its traditions, medicine, with its God-like power to alleviate the sufferings of humanity, still would be a noble profession, but with these traditions, and with this God-like power, it is the very summit and pinnacle of human activities.

"Happy is he", said the illustrious Pasteur, "who carries with him a God - an ideal of beauty, and obeys him, an ideal of art, an ideal of science". And if we are to have strength for our work, courage and hope to cheer us for our long conflict with all the shapes of disease, we must bear in mind the supreme importance of high ideals.

Of all men the medical man must be an optimist. If our work is to save and prolong life, we must believe that life is something worth having and worth keeping, or we are not true to ourselves or to our fellowmen.

The observation of centuries and the universal experience of every day life tell us that the organism of today is the resultant of forces operating in the past, and the diversity of operation of these forces is what gives nature her infinite variety. To us who see every day the working of the inevitable law which visits the sins of the fathers upon the children, and to whom the phenomena of reversion, atavism and variation are constantly present—to us heredity is one of the great powers of nature. And yet we believe by a careful application of scientific principles to the environment, education and occupation of our race, we may and can exercise a beneficial determinant action on generations yet to be, eliminating diseases, stimulating and clarifying mental processes, and strengthening and purifying moral qualities. In this field of effort there is opportunity for the conscientious and devoted physician to approach that ideal referred to by Pascal when he said, "Virtue, directed by knowledge, in bestowing gifts upon mankind, approaches the nature of God".

It is the dominance of ideals that has made the general practitioner of medicine the power for good that he has been in our midst during the entire history of this nation. "The letter killeth, but the spirit giveth life". Mere technical skill could not of its self account for the influence which his work among us has exerted. Like every true worker, he has, with his service, also given himself.

The true philosophy of a professional life not only demands character in the medical practitioner himself, but requires him to recognize character as an essential component of the indi-

vidual lives about him and of the collective life of his community, and to labor unceasingly for the upbuilding and preservation of that vital and life-giving quality.

In a materialistic age such as the present, an age of sense and not of spirit, there is a manifest tendency to belittle the past, to lose sight of its ideals on the ground that most of these ideals are now obsolete, and that past hopes have been either realized or shattered.

But this should not be true in the domain of medicine. Medicine as a science should not usurp the place of medicine as an art. Medical traditions bear within themselves somewhat of the authority that age always lends to human endeavor, and they it is that elevate medicine above the wrangling of the cults.

No scientist, whether he is a physician or a farmer, believes that the knowledge he possesses is absolute. He is ready to admit that what he regards as truth today may, in the light of future discovery, be radically changed tomorrow. He believes that the biologist, following the method of the chemist and physicist, but working with microscopic forms of life as well as with larger forms, comes nearer to the truth than he who relies upon a mystic feeling for what is "right" and natural".

He believes that the soundness or reliability of a proposed plan of action can be determined only by practical demonstration. Not by appeal to popular opinion, or by its seeming reasonableness. He believes that the physician who has gone through six years of training in the principles of anatomy, biology, physiology, and kindred studies, is better fitted to deal with the human body when it is in difficulty or distress than the man who has gone through six months of training in a school which does not recognize the necessity of thorough training in these fundamentals.

But in the struggle between knowledge and ignorance, science and superstition, medicine has, and must continue to lead the way, and in this crusade the general practitioner is quietly serving his community with intelligence, industry and integrity. The Weelum McClure of "Beside the Bonnie Briar Bush" has many living counterparts in our towns and villages—the general practitioner at his best, a friend and a counselor as well a physician.

Medicine is a profession that can use all the resources of a man as no other profession can. It trains all the powers and all the senses. A physician's eye cannot be too keen, his touch too sensitive, or his analytical powers too well



trained. If human happiness consists, to a considerable extent, in our ability to use not only one or two of our powers, but all of them, then surely one of the greatest rewards of medicine is that it not only trains our minds, but our senses, our muscles, and our co-ordinations, and makes them of service to our patients and of value in our professional work.

If anything will arouse interest in the pursuit of truth, it is the practice of medicine. The physician is actually forced to take an interest in what he learns from day to day from the bodies and souls of men. He cannot escape being drawn out of the field of purely practical interest into the impersonal pursuit of truth.

The physician of tomorrow must know humanity as well as anatomy and physiology. He must be trained in the pathology of social conditions as well as in disease processes. He must be as expert in human relationship as in the habits of man's microscopical foes.

The human unit and its reactions are now emphasized everywhere in life—in science, in business, and in politics. The salesman studies the mentality of his prospect. The lawyer, the orator, and the clergyman study the minds of the community. In the same way the physician who formerly allowed his attention to be centered upon diseases, now focuses his interest on the patient. It was exactly this faculty of being able to see the patient as a total entity which constituted, and still constitutes, the greatest element of strength in the general practitioner.

The well trained, well equipped and experienced general practitioner who possesses ability, character and personality, is an important asset to any community. He sees his patient as a person, not as merely laboratory material, and he knows his peculiarities and intimate circumstances. He is able to decide when to refer him to a specialist and when to shield him from the very real danger inherent in a narrowly specialized point of view.

The general practitioner embodies the fundamental American philosophy of individualism, and in spite of the rapid progress of specialization his public is not yet willing to let him go. It is estimated that 75 per cent of our population is still being served by general practitioners, who fill a place that no specialist or medical institution can fully satisfy.

The rapid growth of knowledge in the domains of public health and preventative medicine has thrown upon the general practitioner a requirement which has not existed except in the immediate past. If he is to continue to be the con-

fidential adviser of the community, he must devote more attention to the field of prevention than ever before.

The pressing demand of the day is for well-grounded, well-educated physicians who can diagnose their cases of tuberculosis, diphtheria, typhoid fever, pneumonia, carcinoma, appendicitis, etc., without the aid of a specialist, but who also are fitted to teach the growing generation the methods by which these diseases can be avoided.

To the general practitioner falls the task of discovering the cause or causes of the disease in the individual patient, and helping him to regain his health. This is often a much more difficult and complicated process than that which occupies the attention of the laboratory specialist.

But the general practitioner of today must also to a measurable extent be a specialist in treatment and case management, he could be thoroughly competent in therapeutics, and he must have a sufficient familiarity with laboratory technique to interpret its findings.

Instead of being restricted to a point where it might become a question whether the general practitioner can make a living, as some have asserted, the field of the physician is becoming greater and broadened with each passing decade, and on his skill and efficiency depend much of the burden and responsibility of the whole profession of medicine.

We, the practitioners of the healing art, are the heirs of a noble past. The masters of medicine have passed from our world, but their influence survives—their spirits live. Nothing is plainer in the study of the lives of the greatest of our predecessors than the influence of lofty ideals. From the days of the grand old pagan whom we call the Father of Medicine, and whose recognition of the power of spiritual forces is so plainly seen in the oath which he laid upon his successors; to the great authorities of today, we can trace the power of a faith in the Unseen Universe.

"You touch God", said Novalis, "when you lay your hands upon a human body". The spark of life we tend is part of the divine and immortal. We deal not with dust and today, but with life and tomorrow, and when we realize this, our own nature becomes ennobled so that it works in, and can rise to still higher power. As the healer of the world came from beyond its confines, so we who help in the healing of humanity should be able to rise into the ethereal where we may gain a proper perspective of time and of duty.

And what of the future of medicine? The wisest leaders of the profession, who are its most competent prophets, realize that it will not be given to them to enter the promised land which they glimpse from afar. But they have stood upon the mountain tops and have caught the vision of its wonders. They will draw nearer to it, and others who follow will cross its borders and continue the advance. None will set bounds to it, for it is as infinite as the progress of human learning.

Merely to glance at the questions daily presented to us, is to realize how vast is the realm of medical knowledge yet unconquered. The tiny cell itself is a microcosm full of intense activities which are beginning to emerge into the light through the labors of the mathematical chemist and physicist, of the spectroscopist and the radiologist. How are these new and vast worlds to be explored, and the knowledge of them adapted to the welfare of man? This is the practical problem, and rapid as has been the progress of medicine within the last century, the future holds forth promises so amazing as to make the least imaginative among us gasp at its possibilities.

---

#### RELATION OF INTERNAL MEDICINE TO THE GENERAL PRACTICE OF MEDICINE\*

---

F. W. HEAGEY, M.D., Omaha, Nebraska

Medieval medicine was the side-line of the barber. Far too slowly the art of medicine developed into a calling of its own and its practitioners were dignified by the title of Doctor—a cognomen not lightly given in those days of literary excellence. How simply was the art practiced, even in the memory of many men now living! It was only two years ago, in Ottawa, Canada, I heard Lord Lister's first assistant read a biography of his master, the father of antiseptic surgery. Anesthetics are a product of our country, and the latter part of the last century. There are probably men within hearing whose fathers studied medicine as apprentices, or at the longest, had a full course of two years in standard medical schools of our own country. A multitude of illustrations along this line of the late development of medical practice could be used to show what changes the profession has undergone in the last fifty years.

In the days when drugs were few, physiology a new art, surgery rarely tried because of the

high mortality and lack of anesthetics, obstetrics a case of "Laissez Faire", and bacteriology unheard of, there was no wonder that one small head could hold all that the physician had to know—with apologies to Goldsmith.

All in one great rush has scientific and mechanical knowledge burst upon us in the last twenty-five years. The things to be learned are all too much for the individual to acquire in the short span of life allotted to him in this sphere of activity.

#### ORIGIN OF SPECIALISTS

Whence cometh, then, this peculiar brand of physician which has been labeled "specialist"? The answer is made best by illustration and comparison with other walks of life. It was not long during the era of barbers before one barber excelled in the use of the knife, another in the use of drugs, etc., and by word of mouth of their patients they became medical men or surgeons. This is well illustrated by the men who care for our automobiles—the tire man, battery man, painter, electrician, mechanic, etc.—until we find that the car makes the rounds when trouble arises, or an overhauling is required. The size of the community is a decided factor in the development of the specialist, who must needs have a wealth of material to draw upon. Inclination on the part of the physician often determines the line of work he will follow. There are two ways of navigating this professional stream—one (the more difficult) of heading for a definite port in spite of adverse currents and winds; the other, drifting with each changing wind and current to a place of pleasant anchorage. The latter may be far from the place dreamed of in early practice, but nevertheless in many instances far better suited to the individual.

Many times the specialty is determined long before the physician enters practice, by the medical school and modern hospital. In the past less than 10.5 per cent of the practical men of the United States were listed as specialists, whereas 16 per cent to 25 per cent of the recent graduates are listed as such.

According to the recent preliminary report of the Commission on Medical Education, there are many things to account for this trend toward specializing and concentration in the larger centers of population.

First, the methods used in medical education.

1. The great emphasis placed on the basic sciences and first two years in the medical school where men are trained to be anatomists, physiologists and chemists, not practitioners of medicine. As the last two years are reached, the

\*Presented before the Calhoun County Medical Society, April 21, 1927, Lohrville, Iowa.



student but vaguely sees the application of these intensive technical courses to the practice of medicine.

2. In answers to a questionnaire forwarded by this same commission to physicians in general practice in communities of 50,000 or less, 500 from widely scattered regions said that it was the rare disease that was emphasized in their medical courses, and that the teaching was so much in the hands of the specialist that they were unable to get the practical slant that was so essential for general practice or the understanding of the subject matter in hand. The result of this one thing has been that men in medical school find that it has been easier to follow the lead of the specialist than to attempt to correlate the matter generally for themselves and put it in such shape that they could apply it to the conditions that present themselves in the every day run of human ills.

In the next place, the hospital, which we consider essential for the rounding out of the training of the modern physician, offers to him only the hospital type of case, which this very same commission tells us is only 10 per cent of his total practice when he gets out into the ordinary run of clinical work.

Further than this there is no doubt in the minds of any of us that the element of personal contact and interest is the mainstay and backbone of successful treatment of the average patient that comes to the physician for advice and treatment. In this very same report it was shown that 90 per cent of all illnesses were problems of the individual, yet the hospital does anything but teach the interne or the attending physician how to handle the individual, for he is too often a "number" in the ward or a "room number" to all concerned, and remains as such whether he goes home well or to the autopsy room. Even in the very best of our outpatient departments, the patient is called by number from the waiting bench, and is so handled throughout the entire course of his examination.

In addition, with the modern training of the interne, he feels so much dependence upon the hospital corps of nurses and laboratories, and physical equipment, that when there comes a call for action on his part out in private practice he at once takes the patient to the hospital, and if he is not in striking distance, he immediately makes up his mind, after several such experiences, that he will move into some locality which will put him in touch with such a place, rather than be caught in a like predicament again. There is no doubt about the sincerity of the phy-

sician in these cases, but it seems that the hospital of the modern day so overspecializes (as they have to for the purpose of organization), that the later graduate never learns the devices that our forefathers used, consisting of large amounts of common sense and some ingenuity, and the common knowledge that the tendency for most sick people is to get well.

The standards now set for the Class A hospital demand a great number of consultations, and constantly in any good hospital one hears at the staff meeting a repeated urge for more consultations among the members of the staff, so that in time the interne never thinks of solving a problem for himself or his attending physician, but the chart is filled with requests for consultations and the result is eagerly read.

Changing population is the second great factor which has come up in the last few years to encourage the migration of the doctor to the larger centers, and the result is a greater number of specialists. Fourth class post-offices have diminished 15 per cent from 1906 to 1925, and with this the number of people per doctor has increased over 54 per cent in the country against a 9 per cent increase in the city.

An interesting figure in this same report, which shows the trend of the times, is that in a survey of the men who are practicing in the smaller centers, the average age is over fifty years. This is quite easily explained, for in no place does a physician have to be better trained than when he takes up a practice in the smaller community. The young man often sees and feels his inadequate preparation to meet the situation very soon after he settles in the community remote from the larger hospital, and soon leaves the ground to the man better prepared in every way to meet the varying demands of such practice, and better able to shoulder the serious problems that so often present themselves in a time and place where no help is available and the time is too short to get the help needed before the case has solved itself one way or the other.

The education of the layman is a large factor in this change and we as a profession are largely responsible for this in our eagerness to better the conditions of the community by educating the layman in things of better hygiene, and prevention of contagion, and prevention of constitutional disease. The malpractice suit, with conflicting and disagreeing medical experts' testimonies, has been read by the layman, and by the time he has added a little knowledge gained in a bit of osteopathy, Christian Science, and various other cults, he has about made up his mind that

there is nobody to be trusted in any game, and especially in so important a one as that which has to do with his health. We still have many communities where the doctor's word is law, and what he says is looked upon as the last word on the condition. If this doctor says he needs help, those interested in the case are willing to agree with him, and the patient either dies or gets well without the heartaches of doubt that one so often sees in the larger communities where there is continual question as to whether everything has been done that might have been done, or whether there is something else who might have had a magic touch and prevent the inevitable. There is no doubt that a large amount of the physician's time is spent, not in finding out what the trouble is, but in convincing the patients, or their relatives that a certain course, or plan of procedure should be followed out if a result is to be obtained. Everybody in this day of speed wants the short cut, and patience plays a small role in the treatment of the patient unless the doctor takes unending and repeated measures to reiterate and argue with those interested that certain things should be done. The process of reasoning by analogy is the most pernicious thing that has crept into the minds of the modern laymen, for all somebody needs to say to his near neighbor is that "So and So" had the same thing, and he went to this man, or used that thing, and he was cured after months of trouble. It is like a new car, or radio set—the minute a man has purchased one he seems most intensely interested in getting his neighbor or friend to get the same thing. How similar the course of illness is to a sea voyage! When we board a ship it is with complete confidence in the captain to conduct us in safety and comfort to our port of destination, and there is no argument aboard the ship as to the ability of the captain and his crew to carry this out. In illness the conditions are the same, and yet in this day and age no one physician is trusted if all the friends and neighbors have their way about it.

It has been suggested that one reason for this trend toward specialism is the great cost and length of the medical course, and a resulting desire to go into the place and a specialty that gives the biggest and the best financial returns. The remedy for this then, obviously, would be shortening the course, and we should as a result of this find more men in the country and in smaller centers. An example of this is the chiropractor's course, which is a short one at the best. Where are these men to be found? According to this report, over 90 per cent of them are found

in the urban communities. So, that furnishes us no solution to the problem.

I often wonder whether we have fully realized what a burden the country man carries in the shape of service to the dispensary type of patient who is so amply provided for in the larger cities. In fact, so efficient is this service that it has developed to the place that patients well able to pay for medical services are satisfied with the treatment that they get at these places of free and efficient service, thus depriving the doctors of legitimate income. In the larger cities, the dispensary certainly is manned by the best men, and their time is given enthusiastically and freely for short periods, especially in the early part of their careers.

The very smallness of the community and the personal touch that the country man can give to his practice leaves him absolutely defenceless in the hands of the dead-beat, and often to the demands of the worthy. I have not at hand the percentage of so-called charity work that the average practitioner is called upon to do, but nevertheless it stands to reason to feel that this burden rests to a much greater degree on the country practitioner. He might well feel, in the enthusiasm which comes after entering a new field, or after a speech by some public health official, or after a visit to one of the medical centers, or after reading a very good article in his favorite medical magazine, that he can use this material for the purpose of forwarding the cause of health in the community, but he will soon find that the patients are not interested in anything but the symptoms which they have called the doctor to relieve, and how can one talk, or get a willing ear for such general subjects whose relations to the present illness seem so remote? What the average patient wants is relief from pain, insomnia, dyspnoea, accidents, malaise, fatigue, cough, diarrhoea, abdominal discomfort, etc. In fact, in some communities I have seen valiant efforts made by the doctor and his wife along lines of public health work, and the opposition that developed was exceedingly intense because the motives of these people were questioned, and so the work was often nullified.

A recent analysis of the kind of work that the most of us do was made by the above mentioned commission, and it is surprising to realize that over 90 per cent of the daily work is on cases that seem most easy to diagnose. This, taken in its component parts, consists of office 55 per cent, house work 35 per cent, and hospital the remaining 10 per cent. When you analyze the office work, it consists of 75 per cent minor sur-



gery, upper respiratory infections, and venereal infections, while the house work consists in about 90 per cent of the calls, of respiratory and contagious diseases, with obstetrics and minor surgery in lesser proportion. In this very matter of the prevalence of contagious diseases, the physician himself is doing everything that he can do to improve conditions. It will not be long before contagious diseases will be a matter of the past, just as typhoid fever is becoming rarer every year, and smallpox, in many places, is eradicated. Take away the contagious diseases, and many minor surgical cases, such as the Boy Scout and the nurse are being trained to care for, and there are few cases so urgent that they cannot be transported to the nearby centers. It is this fact which forces so many of us to move into the larger center, for the purpose of recovering this very practice that is going into the hands of the specialist for the very reasons enumerated above.

To my mind, every physician should be an internist and diagnostician in the fullest sense of the word, for it is a simple matter for one to take a history and do a physical examination on every new patient that comes into the office, and make a record of the same for future reference. The simple routine laboratory tests can be and are done in everybody's office, and the more complicated ones are at your very elbow, for it is only a matter of taking the material and sending it to the numerous standard commercial laboratories, or to the state laboratories, who are anxious to do this work for anybody who will take the trouble to send the material in the prescribed way. I wonder if we realize why we get away from the routine minimum examination. In the first place, the great amount of time taken in the call work leaves one tired and very often with little time for the office side of it. In the next place, a practice comes rapidly in the smaller areas, and soon the physician is overwhelmed by the work, or practice increases so rapidly that much attention is not necessary to the individual patient to satisfy one's self, as well as the patient, and with 90 per cent of the cases being of the simple type, it seems like useless effort to go over the patient and establish at least one normal for that patient in the shape of what the five senses can give the doctor about the physical side of the patient. A routine blood count, urinalysis and blood-pressure, with possibly a blood Wassermann upon each patient, gives a standing in the community that will extend for miles, both in the results that are obtained and in the reputation that will spread among the laymen for the thorough going over a patient gets.

The contrast between this and a little conversation, a pat on the back, and some medicine is only too evident to the patient.

Life insurance examinations can be the very trap into which many of us can fall so far as doing incomplete work is concerned. It has little responsibility and requires at the most very little in the shape of physical examination. Yet, in this also can one train himself to be thorough, and at the same time get a training for the health examination that is becoming so popular, and which is entirely different in its scope from the examination of the individual who comes in for an ailment. The man who wants to know "whether he is all right" must be looked at through the eyes of some years hence, and not through the eyes of present conditions, which may be perfectly satisfactory from the standpoint of comfort and strength and ability to do a day's work in the normal fashion.

That, then, leaves us with a definition as to what an internist really is, and when he is defined you will all see that he is nothing but the general practitioner, who has taken advantage of the opportunities afforded him by his education and environment. Is it too much for any of us to resolve that each new patient will be given at least the minimum overhauling before he leaves our care? This sort of attention, plus a little explanation to the patient, will leave very little imagination for the cults to play upon.

---

#### MINNESOTA LEGISLATION

Tracy, Minnesota, May 17, 1927.

D. S. Fairchild, M.D.,

Clinton, Iowa.

My Dear Doctor:

You likely have noticed that our Legislative Committee put over a Basic Science Bill and a good Medical Practice Act, they also killed the Naturopathic bill, the most vicious of all bills. As we will drive them out of Minnesota you can look for a crop.

Yours truly,

H. M. Workman.

---

The above letter from the Third District Councilor, Minnesota State Medical Society, is illustrative of the conditions of practice in neighboring states. In Iowa the amendments to the original 1886 medical practice act, and the independent medical laws enacted since, leave Iowa open to almost anything in the form of medical practice. What appears to be needed is a plain medical act fixing the fundamental qualifications for the practice of medicine.

# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

Publication Committee

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII                      July, 1927                      No. 7

IOWA STATE MEDICAL SOCIETY

The 1927 session of the Iowa State Medical Society was well attended and interesting in the character of its work.

The fact that the A. M. A. meeting in Washington was to follow in a few days seemed to have little effect on the attendance for it was to be observed that the men who usually attend both were present at Council Bluffs. This observation is interesting from the fact that the state medical society has a place that cannot be filled by the national association.

The great value of the American Medical Association lies in the House of Delegates. Our early recollection of the Association was of the presentation and discussion of papers, the introduction and discussion of individual resolutions, interesting and valuable, but this has been taken over by state societies. It is now the House of Delegates that determines the value of the American Medical Association. Our complex civilization has brought the practitioner of medicine into quite different relations to the public than of fifty years ago. It is quite difficult to determine the tendencies of our government but as we look back it would appear that we are losing our individual freedom and the benefits of representative government, replaced by organized minorities which undertake to determine the course of action of the individual and his method of living, often under the guise of welfare agencies.

In organized society, medicine has a vital position in averting disease, promoting health, and to a certain extent, under one form or another, the cure of disease. As health relations come so close to the individual member of society, and to society as a whole, and as medical science lies at the foundation of health activities, the medical profession necessarily comes into some relation to public welfare legislation. Unfortunately for the comfort of the profession an undue burden falls on medicine, representing as it does a minority position.

There should therefore be an agency with knowledge, and endowed with authority to watch and guide legislation and other activities which have for their purpose the benefit of society. This agency is found in the House of Delegates of the American Medical Association under the guiding knowledge of an able body, the Board of Trustees. Agencies never before thought of, have come into existence, which exercise a watchful care over the interests of the medical profession busily engaged in professional work. To those who read the Journal of the American Medical Association this is well known. It is true that from time to time unfriendly influences seem to prevail but the persistent efforts of organized medicine, under competent direction generally brings a comfortable modification.

The State Medical Society, as represented at Council Bluffs, illustrates the usefulness of state and local organization. The report of the Councilors shows a healthy condition in several counties. It is quite difficult sometimes to understand the indifference of the medical profession to the interests of their own profession but this is more apparent than real, for on the day preceding, a group of young men joined in organizing a surgical society known as the Iowa Clinical Surgical Society, for the purpose of advancing surgery; such societies exist everywhere. The exchange of views and practice thus made possible will reflect credit to the profession of the state and advantage to the public. The same may be said of the various societies for the advancement of internal medicine. There are groups of men who lived beyond the period of productive work who may find active and useful employment in some of the many branches of medical activities, such for instance as lending aid and encouragement to medical organization. It is unfortunate when men come to feel that they have outlived their usefulness; while they are unfitted to perform the active duties of practice, the field of medicine is so broad that work may be found which the busy practitioner cannot



afford the time to perform, and may be relegated to the men who do not recognize the inroad of years, but must recognize certain physical disabilities.

---

### THE AMERICAN MEDICAL ASSOCIATION

---

The powerful influence exercised by the American Medical Association through its Board of Trustees, the Journal, Councils and special Committees, is scarcely appreciated by the great body of the medical profession. We cannot undertake to interpret the mass-mind or explain the strange vacillation of human thought that often leads into strange channels. These curious phenomena are not confined to medicine but extend into religion, politics and social affairs of every kind. Many of these states of mind pass without harm if time enough is given, and our escape from disaster is often accomplished by some influential agency.

The American Medical Association, as we first knew it, consisted of groups of leading practitioners from the different states gathering for the purpose of the discussion of medical and scientific subjects in relation to the diagnosis and treatment of disease. Sometimes personal and sectional matters came in to disturb the quiet of the sessions; these chiefly related to medical educations and rival schools.

It was not until the discoveries of the bacteriologists that health measures assumed an important position in the work of the Association. At the same time the field of medicine was broadening in every direction; in its practical relations demanding radical changes in medical education. With this came concentration in centers of population, and vastly increased expense in securing license to practice.

A reference to the complications in the practice of medicine would be interesting particularly in relation to the business and money getting side of the profession in the shortest time and cheapest manner. Under the guiding influence of the American Medical Association organized medicine everywhere sought to advance medical practice by surrounding it with certain restrictions. Then has come legislation to remove restrictions which has been more or less successful in different states.

While the control of medical education and medical practice is a function of the state and not of the nation, national legislation through the administration of over-zealous government officials has imposed unnecessary and increasing burdens upon the profession which the individual

practitioner, or even groups of practitioners, cannot resist except through the great organization of the national medical profession. Directed by the American Medical Association they can be kept within reasonable control, but so far as the states are concerned it is wholly within the province of the State Society to exercise a directing care.

The great purpose of the national organization was in earlier years to advance the cause of medical education, but little progress was made however until a Council on Medical Education was organized. The real underlying influence was the advanced knowledge of science which could be utilized in the prevention of disease and in the practice of medicine.

Now we are halting for a period to see if we have not gone too far in regard to the preparation for the practice of medicine. This is being considered by the same agency that brought us to our present state in medical education—The American Medical Association. The standardization of medical education is of doubtful wisdom. It would be better to fix certain minimum requirements and permit each college to fix its own standards within these minimum requirements.

A healthy minimum requirement, established which every practitioner should reach and go as far beyond as his necessities may require, but not one standard for common everyday doctors and another standard for the "aristocrat" and the special practitioner. This is what we shall ultimately reach.

It is difficult to conceive of a better or wiser organization than the one we have under consideration. It will always be easier to dispose of the small minds which are crying out against medical aristocracy organization and monopoly (great medical trust)—than to change the aspirations of the real medical mind.

---

### THE PRESIDENT OF THE UNITED STATES AND THE MEDICAL PROFESSION

---

We once had a President of these United States who had curious notions about the medical profession; an exceedingly good man, a man better suited to some pious cause than to be the head of a great selfish people. We now have a President everyone talks about but whom no one knows, a man everyone listens to but no one understands.

It so happened that when President Coolidge addressed the American Medical Association in

Washington recently we had the opportunity to see him under most favorable conditions and study his face as he addressed the great gathering of medical men. He had but recently risen from a sick bed, but he gladly assumed the risk of appearing before the great body of medical men, in no sense devoted to politics but entirely devoted to public welfare, who had come together at very material loss and expense to themselves, to co-operate their energies for public service. President Coolidge stood, before the reading desk with his manuscript before him, while the President of the Association made his introductory speech,—regarding his audience in a knowing way and apparently measuring the faces before him with unerring certainty. Never before had the strength of the man appeared to us in such striking manner, the characteristic features, the pale face, the dark hair. The face of the President, as it had appeared to us in the pictures we had seen, betrayed elements of weakness, but not so the living face as he stood before us awaiting the close of the formalities of the introduction. It might have been the face of a Michevilli, or the face of a great judge of human life or of human affairs. We had in mind a similar occasion under like conditions, an opportunity several years before when the Governor of New Jersey, Woodrow Wilson, stood before a similar audience and expressed similar views. The face was different. It was the face of a great man with a single purpose in view, public service and sacrifice. The words as they flowed from the lips of Governor Wilson, while not stronger or greater than those of President Coolidge, carried a fascinating influence, difficult to measure.

President Coolidge did not attempt to dwell on the greatness of the medical profession and its members, its sacrifices, but rather on the accomplishments of medicine and its services to mankind; the long years of struggle to reach a point where a knowledge of the cause of disease made it possible to adopt scientific means of controlling the spread of disease, and add to the sum of human happiness. It was clear from what the President said that he was a friend of scientific medicine. It has been the policy of President Coolidge to refrain from specific statements of policy and yet on this particular occasion it was clearly evident that his sympathies went out to such activities of medicine as contributed to the health and welfare of the country and this accomplishment was through scientific medicine rather than through any form of empiricism.

### THE PRESCRIBING OF WHISKEY BY DOCTORS

The resolution of Dr. M. L. Harris of Chicago that every resolution presented relating to alcohol be referred to the Board of Trustees for investigation, is interpreted by the press as a revolt of the American Medical Associations' membership against the limitation placed on their right to prescribe alcoholic liquor for medicinal purposes. It will be recalled that the Supreme Court held that Congress in placing a restriction on the amount of whiskey which may be prescribed in a certain period of time was acting within their constitutional rights and in support of the claim that Congress was not acting in an arbitrary manner cited the resolutions adopted by the House of Delegates in 1917, holding that "alcohol had no scientific place in medicine".

This resolution no doubt had a great influence in bringing about this restrictive legislation. It is now apparent that the principle involved in this legislation is more important than the act itself. When the 1917 resolution was adopted it was, no doubt, a compromise, reflecting the personal views of a considerable body of the House of Delegates on the indiscriminate use of whiskey in medicine and that this authoritative expression of the medical profession would be of material aid in the cause of prohibition.

It is now plain that if this restriction is allowed to pass, it will lead to other laws held for by so-called welfare organizations and others, seeking various reforms from an interested or mistaken point of view as to the duties or obligations of the medical profession.

Doctors, like other people, have personal views as to the use of whiskey as a beverage and likewise as to the value of whiskey as a medicinal agent. It is difficult to discuss this subject on its merits, it has now become so involved in politics but it is proper at this time for the medical profession to take a part in the discussion on legislation concerning whiskey, in a dignified and professional manner, primarily for the purpose of freeing the medical profession from a serious encroachment on its rights of independent action in conducting a legitimate practice. If in the professional judgment of a qualified practitioner it is necessary to use twice or more the amount of whiskey that is now permitted by law, or if in his opinion morphine is necessary, or quinine or digitalis, he should be permitted within the law to prescribe these agents and in such doses or quantities as his judgment dictates. It has been sufficiently determined by the courts, that congress and state



legislatures can pass laws that impose increased burdens upon the medical profession, and this tendency is increasing, strange to say, the profession is indifferent until the burden comes upon them. The medical profession can be used in so many ways, and can so easily be utilized in the advancement of various causes, not always for the public good, that watchful care should be exercised through proper agencies. The American Medical Association is now so organized that through various channels safe council may be obtained in the way of lessening these dangers.

In the political campaign approaching, the attitude of organized medicine will be often quoted and utilized one way or another. Were it not for the dangers of unreasonable legislative control over the practice of medicine we should feel that only individual members of the medical profession should express more than their individual views on the subject of alcohol control, but when it appears that the independence of the profession is involved the questions should be seriously considered individually and collectively.

---

#### NEEDED SAFEGUARDS IN THE PROMULGATION OF REGULATIONS UNDER THE NATIONAL PROHIBITION ACT AND THE HARRISON NARCOTIC ACT

---

The imposition of duties and prohibitions on the people through regulations promulgated by department heads, bureau chiefs and administrative boards acting under authority of Congress, and not directly by acts of Congress, seems to be a necessary outcome of the magnitude and complexity of our Government. There is no reason, however, why the formulation and promulgation of such regulations should not be as public as are the deliberations of Congress in the course of the enactment of a statute, nor why such regulations as are promulgated should not be published as widely and made as accessible as are such statutes as are enacted. In fact, publicity, publication, and accessibility are essential to intelligent cooperation between the department head, bureau chief, or board promulgating a regulation and interested members of the community who must live under it, and are necessary to due execution and proper compliance.

Because of the absence of any statutory requirements as to the procedures to be followed with respect to these matters, the practices of various department heads, bureau chiefs, and boards vary, and the practice of a single de-

partment head, bureau chief, or board may vary from time to time. It seems desirable, therefore, that the entire situation be regulated by law, so as to promote uniformity and to hinder arbitrary and unwise action.

The same principles should doubtless apply to all regulations having the force and effect of law. Organized medicine, however, can hardly concern itself with such a broad field, but must properly limit its interests to the fields of particular interest to the medical profession, namely, the fields covered by the National Prohibition Act and the Harrison Narcotic Act. With a view to the proper control of the promulgation of regulations under the acts named and under similar acts, the following principles are suggested, for enactment into law:

1. Adequate public notice shall be given, and opportunity afforded interested parties to be heard, by brief or orally, before any regulation is promulgated.
2. Any regulation promulgated shall be officially published so as to inform the interested public of that fact.
3. A reasonable time shall be allowed after the promulgation of any regulation before it becomes effective.
4. Authentic copies of all regulations shall be available at all times to persons requesting them.
5. All regulations promulgated shall be officially reported to Congress annually and be published in authentic form in the statutes at large or in some other proper, generally available form.
6. When Congress first convenes after the enactment of the proposed law all regulations in force shall be officially reported to Congress and shall be published in authentic form in the statutes at large in some proper and convenient form, so as to bring publication up to date.
7. To meet emergencies, the president may waive the time limits and proceedings normally required for the promulgation of regulations, so as to permit the promulgation immediately of regulations necessary to meet the situation, such regulations to remain in force until regulations can be promulgated in due course.

I shall be glad to have any suggestions you are willing to offer with respect to this matter. If such legislation as is suggested above meets your approval, please let me know, so that the way can be better paved for its introduction when Congress convenes in December next.

WM. C. WOODWARD.

Executive Secretary, Bureau of Legal Medicine and Legislation.

**ATTENTION: FORMER ILLINOIS DOCTORS**

---

Doctors who lived formerly in Illinois, or who are descendants of pioneer physicians of the "Illinois country" will hear with interest that Volume One of the "History of Medical Practice in the State of Illinois" is ready for delivery.

The history has been written under the supervision of a committee appointed by the Illinois State Medical Society as a commemoration of its seventy-fifth anniversary but more especially to make a living tribute to those valiant men of the medical profession who played so able a part in the exploration, settlement and development of the Illinois country.

In this first volume of the History are set down events from the earliest available knowledge of conditions in the Illinois country, along through the days of the Aborigines, and commencing with the actual records when, in 1673 Father Marquette had medical attention in Chicago, up until the year 1850.

In the second volume (now in preparation), narration continues up until the present time. Future years will bring other volumes so that this History will be an ever virile monument to the men and incidents whom it would honor.

Research of years resulted in an opulent supply of material from which to compile this History and has evidenced to an almost unbelievable degree the vital part played by physicians in every angle of the exploration, settlement and development of a country that is one of the richest and most influential sections of the richest country in the world.

It must be remembered that originally the Illinois country encompassed a territory far greater than the area now known as the state of Illinois, Wisconsin, Indiana, Missouri, Kentucky and Iowa, as well as what is now Illinois, and even some sections of Ohio fell into that primitive epitome of the Illinois country. In the southern part of the state it was well into the nineteenth century before Missouri and Illinois ever acknowledged the natural divorce of interests made by the Mississippi river. Because of this, naturally enough, close interest in this History extends to physicians or to their descendants in practically every state in the Mississippi Valley or contiguous thereto.

Rare maps, unusual personal memorabilia and rare discretion in compilation, make this History of unique interest to doctors everywhere and to many laymen.

This History of medical practice in the state of Illinois, embodies in the course of its narration, an interesting and illustrated digest of the early efforts of white settlers in Illinois, with specific allusion to the share in these tasks, performed by medical men. Included are portraits of rare interest, reproductions of historic documents, excerpts from diaries, personal letters, human reminiscences of days fraught with peril, filled with hope, and not devoid of humor, through a period of about 250

years. From the days of the "Chirurgeon" who attended Pere Marquette, through the massacres at Fort Dearborn, the years of Indian raids, down with the circuit-riding "saddle-bag" doctors, to these days of radium and radio, this History marches. Attics, family albums, safe deposit vaults, and state records have been ransacked to produce the material needed for this chronicle. Illinois holds today the honor of being the world's medical center. Progressive steps of this achievement, and its contributive factors such as hospitals, asylums, sanitariums and allied institutions and medical colleges are set forth in detail, both pictorial, documentary and narrative. In brief, this account epitomizes the almost unequaled growth of a community whose economic wealth is paralleled by its public health. Personal data of the men, of the organizations—including pioneer army and navy physicians and surgeons and local, county and district societies, schools and hospitals as well as of the Illinois State Medical Society itself; various internationally famous medical discoveries made by Illinois men; the state's contribution to the world of research; medical libraries and periodicals existent in Illinois; campaigns for medical protection against enemies of public health; details of the various Medical Practice Acts; state sanitation from the notable drainage canal and the supervision of food supplies, vital statistics; meetings, officers, policies and finances of the State Society—all this and more in accurate transcription make this History a miniature encyclopedia of scientific advance and desirable and hitherto unavailable information.

The edition is limited. It will not be reprinted. A place in every physician's library is merited by this volume, both as a tribute to the men who blazed the trail for modern scientific medicine and as an ever-present reminder and authority as to what is happening to medicine right in this state every day, so far as finance, discovery, legislation and public relations are concerned, and the men who are responsible for the heritage of trust for over two centuries and a half. Volume One is now ready. Volume Two will follow soon. Orders may be sent to Committee on Medical History, Illinois State Medical Society, Medical and Dental Arts building, 185 North Wabash avenue, Chicago, Illinois, Charles J. Whalen, M.D., chairman.

---

**AMERICAN BOARD OF OTOLARYNGOLOGY**

---

The American Board of Otolaryngology conducted an examination at Washington, D.C., on May 16 and 17, and at Spokane, Washington on June 4. Of the 142 men examined at Washington, D.C., 119 were passed and 23 failed to pass the examination. In Spokane, the number passed was 46, and the number failed was 6.

The next examination will be held in Detroit on September 12, 1927. The applications for examination should be sent to Dr. H. W. Loeb, Secretary, 1402 South Grand Boulevard, St. Louis, Missouri.



**Minutes of the Iowa State Medical Society  
Seventy-sixth Annual Session  
May 11, 12, 13, 1927  
Council Bluffs**

**Wednesday, May 11, Morning**

The members of the Iowa State Medical Society convened in annual session at Hotel Chieftain, Council Bluffs, May 11, 1927.

The meeting was called to order at 9 o'clock by the President, Dr. Thomas E. Powers, Clarinda, and was opened with invocation by Rev. Jacob R. Perkins, Council Bluffs, Pastor of First Congregational Church:

"Infinite Father, we thank Thee for the mercy and the mission and the moral grandeur of Medicine, for the dignity and nobility of this honorable calling that runs parallel in human thought and in human achievement with religion itself, aiding in the work of moral and spiritual advancement. We thank Thee that its scientific advance has been so great that darkness, superstition and error have fled before it, and in the beginning of this assembly we pray Thy blessing upon these men as they gather here in annual session, seeking through their discussions and deliberations for the light of understanding that they may turn it back into human service and social order. Grant to each member here Thy blessing and benediction that he may feel the greatness of his calling and the large part he should play in human society, and when this assembly shall have closed may the science of Medicine, through the conference of these men, be dedicated anew to the cause of humanity. We ask the riches of Thy grace through Him that bought us through a great price, our Master and Savior, Amen."

The Address of Welcome for the city was given by Hon. Emmet Tinley, Council Bluffs, as follows:

"Ladies and Gentlemen: I am very much pleased to have the privilege of welcoming the doctors of Iowa to our city. I am advised that every precaution has been taken by the Mayor for your protection. The police department has been instructed, while observing your anticipated very circumspect conduct, to look after you with a mother's care. I have no standard by which to measure the necessity for this precaution for the doctors of the state, other than through my acquaintance with the physicians of this city; they are wonderful workers in the vineyard of the Lord, but like little children in business, and I caution you therefore to beware of talking to strangers. I beg that you be not tempted by glittering stories of the possibilities of suddenly acquiring great riches, to make investments in any oil or other highly engraved stocks.

"It is a pleasure and an honor for the citizens and the city as well, to welcome you on the occasion of your seventy-sixth annual meeting. You are with us in this very dear city of ours, rich in its memories and its incidents and its instances of great historic values. You are now in a part of the level bottom

land which a century ago was the outfitting place for the visionary inhabitants of the world, rushing westward seeking treasure from the bowels of the Rockies, hoping for riches from the sands of California and looking for joys to be found in the land of the setting sun—the wave-washed shores of the beautiful Pacific. You are but a short distance from the greatest trading post of the central west. You are but a short distance from the famous stockade, block-house and mission established a century ago by Father de Smet. You are but across the street from the hall in which Lincoln delivered his great address in this central west. You are but a short distance from the point where Lincoln stood, looking toward the setting sun, across the trails of the sunflower, the river beyond and the prairies stretching westward—where he visioned, undoubtedly, the wealth of today; the trails of the ox-drawn prairie schooner, and in their place the steel bands of commerce-carrying railways with the many peaceful homes, great buildings and busy factories. You now are in the city where the great progress of the west was visualized and predicted by America's greatest man. In our history, Council Bluffs finds its greatest wealth and the cause of its proudest boast. I need but refer to the last war and the fame brought to this city by Hospital Unit "K" which afterwards became Mobile Hospital No. 1, which will last throughout the ages. We remember with pride the large percentage of doctors and nurses of the city who played so wonderful a part in that great war. We remember, too, the path of the doctors and nurses who remained, the little handful of men and women, performing the service for their brothers and sisters at the front, ministering to the wants of all our people, carrying the burden of those who went to the front, visiting their patients and serving them in the name of the absent brother and absent sister.

"You are indeed welcome, and in welcoming you who represent the modern system of medical service to mankind, we think of the family doctor of the olden times, visiting the home with his little satchel and his drugs, traveling day and night by the slow methods of the early days, giving comfort, peace and consolation. We welcome you because we think of you as being equipped, in the language of today, with the modern facilities for the care, diagnosis and treatment of disease. We welcome you because we believe that through you and your confreres have come to the world the great equipment and profound knowledge of your profession, as a gratuity to suffering humanity."

Dr. Frank Earl Bellinger, Council Bluffs, on behalf of the Pottawattamie County Medical Society and the local profession, extended to the visiting members the following words of welcome:

"Mr. President, Members of the Iowa State Medical Society: On behalf of the profession of Pottawattamie County and the Council Bluffs Medical Society, I wish to welcome you to our city. Our eminent attorney Mr. Tinley has practically covered

the history of our city and the position that our profession has taken in the development of this great state in which we have the honor and pleasure of residing. We assure you that the medical profession of Pottawattamie County and Council Bluffs consider this meeting a compliment to our city and an honor to our profession.

"We live out here where the slogan is that the real west begins at the Missouri. We have not had the pleasure of entertaining the Iowa State Medical Society for a great many years. According to the records of the Society it has been some forty-five years since this body met in Council Bluffs, and it is a great pleasure to have you with us at this time. I hope that your stay in Council Bluffs will be one not only of pleasure, but of benefit along scientific lines. I trust that the medical profession of the city and county will be able to make your visit here a memorable one. We surely appreciate having you with us, and hope the organization will see fit to return at an early date."

Dr. Walter L. Bierring, Des Moines, on behalf of the visiting members responded as follows:

"Mr. President, Members of the Pottawattamie County Medical Society, Mr. Emmet Tinley, Ladies and Gentlemen: It always gladdens the heart of every guest to know that he is welcome, but I am sure we have all been touched by this cordial, eloquent and protective welcome that has been extended to us. We are conscious that we are in a historic place, and I know that our thoughts also go back to that time when Council Bluffs was regarded as the last town between the states and the coast; when it was the fitting out station for the covered wagon in blazing its trail through the empire of the west, and later, through the engineering genius of General Dodge, was the starting point in the laying of rails towards the Golden Gate. We also recognize that the prophecy made by the great emancipator some seventy years ago has been well fulfilled, and that this city upon the western border of Iowa has always been in the forefront of civilization and of medical progress. It has been mentioned that in the experience of practically all of us, this is the first time we have assembled here for a session of the State Medical Society. It was on May 16, 1883, forty-four years ago, that the Iowa State Medical Society was last called into session in Council Bluffs. Time will hardly permit one to state here for purposes of comparison what has happened from that day to this, for a generation has come and gone in Medicine. On that day Dr. Scofield of Washington was president, Dr. Robinson of West Union was vice-president, Dr. J. F. Kennedy was secretary, and as he did not arrive the first day Dr. Donald Macrae served in his place; and Geo. Skinner of Marion was treasurer. All have passed into the beyond. I wonder if any here today were present at that meeting. I can only remember the names of Cokenower and Smouse of Des Moines, Heilman and Moorehead of Ida Grove, and Joor of Maxwell, who were on that occasion

present at a meeting of the Society for the first time. Seventy-two members were registered and fifty-two delegates were elected to membership, 124 being the complete attendance.

"The period between that time and this has been, as we well know, the golden age of achievement in Medicine. It was in the time when the science of bacteriology was beginning to manifest itself, the meeting referred to being held only a year after Koch had discovered the tubercle bacillus. A year later at Des Moines Dr. Jenkins of Keokuk read a paper on the etiology of scarlet fever, stating that it was distinctly of microbic origin. Lister was just beginning to adopt the principles of Pasteur, and we know that there has been a complete change in all our surgical methods since that day.

"In this great evolution of progress the Pottawattamie County Medical Society has taken a foremost part. We think of the names that have been famous in Iowa Medicine that belong to Pottawattamie County. Recently in reviewing some of the histories of county societies it was noted that reports from the Pottawattamie County Medical Society appeared regularly in the columns of the state medical journal, when many much larger county societies of the state apparently had only occasional meetings and were very derelict in reporting them. We think of that great Scotchman who came from the University of Edinburgh and stimulated the ideals of Medicine all along this Missouri Valley, and it is an interesting fact to record again that two generations of Donald Macrae have been honored by election to the presidency of our Society. We view with pride the part that the Pottawattamie County Medical Society has taken in the development of Iowa Medicine.

"We come here again today, after forty-four years of absence, gathering somewhat like the chiefs of old on these council bluffs, in this beautiful Chieftain hostelry of a later day, to smoke once more the pipe of peace and harmony, to make new friendships and renew the old. Possibly to worship a bit at the shrine of the muse of medical science, but above all to breathe that spirit of fellowship which makes these annual meetings the brightest spots on memory's page. It is in that spirit that we accept these kindly words of greeting and of hospitality, and express our gratefulness for the cordiality of the welcome that has been extended to us."

By request of the Secretary, Dr. Frank M. Fuller, Keokuk, on behalf of the Society, presented the emblem of authority to the presiding officer. President Powers responded as follows:

"I accept this gavel, not alone for its intrinsic value, although that is considerable, but because of the spirit which prompts its presentation. To be chosen to preside over a body of scientific men of this character I consider a greater honor than the conferment of any office of a political nature. I sincerely thank you all for the privilege of occupying this position. I shall never forget it, and my



heart is full of gratitude and I thank you for the gift of this beautiful symbol of the office."

Dr. William Jepson, Sioux City, moved that inasmuch as local doctors not members of the Society as well as visitors from other states might be in attendance at the sessions, the privileges of the floor be extended to all visiting physicians.

The motion was seconded, and carried.

Papers were read, as follows:

"The Relation of the Health Department to the Practicing Physician", Dr. Henry Albert, Des Moines. The paper was discussed by Drs. Daniel C. Steelsmith, Dubuque; Earl G. Brown, Kansas City, and Walter L. Bierring, Des Moines, the essayist closing the discussion.

"A First Aid Station in the Country", Dr. William F. Amdor, Carbon. Discussed by Drs. A. Fred Watts, Creston; J. L. Augustine, Ladora; J. L. Taylor, Monroe; A. P. Johnson, Sigourney; M. A. Tinley, Council Bluffs; Charles H. Magee, Burlington, and Walter L. Bierring, Dr. Amdor, closing the discussion.

"What Are We Doing with Cervical Carcinoma?" Dr. Kenneth I. Johnston, Oskaloosa. The paper was discussed by Drs. William Jepson; Frank M. Fuller; J. T. Hanna, Burlington; Paul A. White, Davenport, and E. C. McClure, Bussey, the essayist closing the discussion.

"Some Viewpoints on Senility", Dr. Ralph S. Lovelady, Sidney. Discussed by Drs. P. B. Cleaves, Cherokee, and Charles H. Magee.

### Wednesday, May 11, Afternoon

The meeting was called to order at 1:30 o'clock by the President.

Dr. Charles H. Magee, Burlington, Chairman of the Surgical Section, gave an address on "Some Fundamentals in Education".

Dr. Lester D. Powell, Des Moines, read a paper on "Indication for Surgical Treatment of Duodenal Ulcer". Discussed by Drs. Paul A. White; Donald Macrae, Jr., Council Bluffs; Walter L. Bierring, and John F. Ritter, Maquoketa.

Dr. George V. I. Brown, Milwaukee, gave the Address in Surgery, entitled: "Plastic Surgery of the Present Day as Related to Practitioners of General Surgery and Medicine and the Layman", with lantern demonstration, (by invitation).

Dr. John I. Marker, Davenport, read a paper on "The Present Status of Treatment of Syphilis of the Central Nervous System". Discussed by Dr. William E. Ash, Council Bluffs, and the essayist in closing.

Dr. George W. Koch, Sioux City, presented a paper on "Tuberculosis Complicated by Syphilis; Report of Case". Discussed by Drs. Herbert V. Scarborough, Oakdale; Murdock Bannister, Ottumwa, and Walter L. Bierring, the essayist closing the discussion.

### Wednesday, May 11, Evening

At 6:30 o'clock the Fellows of the Society, members of their families, and friends, convened in the

banquet hall for the annual dinner and accompanying musical entertainment with dancing, following which Dr. V. L. Treynor introduced Hon. Frank H. Gaines, Omaha, Nebraska, who spoke on the subject—"How to Live".

### Thursday, May 12, Morning

The meeting was called to order at 9 o'clock by Vice-President Frederick G. Murray, Cedar Rapids.

Papers were read, as follows:

"Head Injuries", Dr. Nelson McP. Whitehill, Boone. Paper discussed by Drs. Francis E. Holbrook, Des Moines; Thomas F. Thornton, Waterloo; Frank A. Ely, Des Moines; Charles H. Magee, and Max E. Witte, Clarinda.

The House of Delegates having adjourned, President Powers presided during the remainder of the session.

"Malta Fever", Dr. Lee R. Woodward, Mason City. Paper discussed by Drs. Albert V. Hardy, Iowa City; Bannister, Ottumwa. Dr. Woodward closing the discussion.

"Operations for Prolapsus Uteri in Patients Past the Menopause", Dr. Coral Armentrout, Keokuk. The paper was discussed by Drs. S. A. Spilman and William C. Newell, both of Ottumwa; G. H. Miller, Iowa City; Geo. M. Crabb, Mason City; Emil C. Junger, Soldier, and K. I. Johnston, Oskaloosa, the essayist closing the discussion.

"The Diagnosis and Treatment of Sterility", Dr. Norman Miller, Iowa City. Discussed by Drs. Charles H. Magee; J. T. Hanna; Paul W. Van Metre, Rockwell City; Wm. H. Dewey, Merville, and Thomas F. Thornton, Dr. Miller closing the discussion.

"Our Maternal Mortality", Dr. Floyd W. Rice, Des Moines. Paper discussed by Drs. Everett D. Plass, Iowa City; W. R. Brock, Sheldon; Nicholas Schilling, New Hampton; A. P. Johnson, Sigourney, and Frank W. Smith, Red Oak, Dr. Rice closing the discussion.

### Thursday, May 12, Afternoon

The meeting was called to order at 1:30 o'clock by the President.

A paper on "Hemangio-endothelioma-sarcoma of the Spinal Cord", by Drs. John C. Hancock and Wayne A. Johnston, Dubuque, was read by Dr. Hancock, following which Dr. Johnston showed slides illustrating the x-ray and pathological findings and further discussed the case reported. Discussed by Dr. Frank A. Ely.

A Symposium on "Heart Disease" was then presented, as follows:

"Incidence, Etiology and Economic Aspects", Dr. James S. Gaumer, Fairfield, Chairman of Medical Section.

"Symptoms of Heart Disease; a Study of One Thousand Consecutive Patients", Dr. Merrill M. Myers, Des Moines.

"Treatment of Cardiac Failure", Dr. Verne C. Graber, Iowa City.

Discussion of Dr. Gaumer's paper was opened by Dr. Paul W. Van Meter, Rockwell City; that of Dr. Myers' paper by Dr. Frank M. Fuller, Keokuk, and of Dr. Graber's paper by Dr. John H. Peck, Des Moines. General discussion followed by Drs. A. D. Woods, State Center; O. C. Morrison, Carroll; Tom B. Throckmorton, Des Moines; Walter E. Scott, Adel; Nicholas Schilling, New Hampton; H. B. Young, Burlington; and George W. Koch, Dr. Myers closing the discussion.

Dr. Throckmorton read a telegram from the Secretary of the Nebraska State Medical Society, in session at this time, with greetings and best wishes to the Iowa State Medical Society for a successful meeting, and further stated that a telegram in acknowledgment of their message had been sent and also a suitable flower tribute wired to the Nebraska Society.

The Secretary then read a telegram from Dr. John H. Musser, Jr., stating that due to acute illness in his family it was impossible for him to be present, expressing extreme regret in being forced to forego the honor of appearing before the Iowa State Medical Society, and suggesting that his paper be read. The Secretary announced that a telegram expressing the sympathy of the members and the hope of speedy convalescence had been sent to Dr. Musser.

The Address in Medicine: "Disorders of the Blood", by Dr. John H. Musser, Jr., Professor of Medicine, Tulane University of Louisiana, School of Medicine, New Orleans, was then read by Dr. Frank M. Fuller.

Dr. Francis K. Burnett, Clarinda, read a paper on "Preparation of Patients for Operation".

Paper on "The Pre and Post-Operative Treatment of Major Surgical Cases", by Dr. Elias B. Howell and Dr. F. A. Hecker, Ottumwa, was presented by Dr. Howell.

These two papers were jointly discussed by Drs. John F. Herrick, Murdoch Bannister, and Wm. C. Newell, Ottumwa; and by Drs. Burnett and Howell, in closing.

#### Thursday, May 12, Evening

The meeting was called to order at 8:15 o'clock by Vice-President Frederick G. Murray.

The President's Address was then given by Dr. Powers, his subject being, "Scientific Medicine". At its close the audience fittingly expressed its approval of the comprehensive and scholarly way in which the subject of the development and progress of scientific medicine from the dawn of history to the present day, had been presented.

Dr. Gabriel Tucker, Demonstrator of Bronchoscopy, Jefferson Medical College, and Associate Professor of Bronchoscopy and Esophagoscopy, Graduate School of Medicine, University of Pennsylvania, Philadelphia; guest of Section on Ophthalmology, Otology and Rhinology, addressed the Society on "Suppurative Diseases of the Lung;

A Demonstration of Cases at the Bronchoscopic Clinic". (Lantern Slide and Moving Picture Demonstration.)

A buffet luncheon and smoker, with entertainment, followed the scientific program.

#### Friday, May 13, Morning

The meeting was called to order at 9 o'clock by the President.

Papers were read, as follows:

"Narrowing the Surgical Risk", by Dr. Warren E. McCrary, Lake City. The paper was discussed by Drs. William A. Rohlf, Waverly; Emil C. Junger; and James W. Osborn, Des Moines, the essayist closing the discussion.

"Clinical End Results in Glandular Therapy", by Dr. John F. Ritter, Maquoketa. Discussed by Dr. John F. Herrick, and by the essayist, in closing.

"Treatment of Tumors of the Bladder by Means of Surgical Diathermy", by Dr. Abraham G. Fleischman, Des Moines. Discussed by Drs. Walter E. Scott, and Daniel W. Thompson, Council Bluffs, Dr. Fleischman closing the discussion.

"Otitis Media in Infancy; Its Significance and Recognition", by Dr. Jack V. Treynor, Council Bluffs. The paper was discussed by Drs. Lloyd G. Howard, Council Bluffs; Hamilton; Frank M. Fuller; Chas. B. Taylor, Ottumwa, and James H. Gasson, Bedford, Dr. Treynor closing the discussion.

"The Etiology and Treatment of Chronic Emphysema", by Dr. Howard L. Beye, Iowa City. Paper discussed by Drs. William W. Bowen, Fort Dodge, and Thomas F. Thornton, Dr. Beye closing the discussion.

Report of the transactions of the House of Delegates was then presented by the Secretary, as follows:

#### Summary of Proceedings of the House of Delegates

"In reporting to the General Assembly the proceedings of the House of Delegates, I wish first of all to say that the work of the members of the House has been very harmonious, in fact for a long time it has been a veritable love feast compared to what it was in years gone by. The first day's work consisted largely of the reception of reports of the various officers, such as the Secretary, the Treasurer, the Councilors, and the Board of Trustees. Outside of routine business there was nothing of particular interest at the session of the first day.

"Yesterday the House met as usual at 8 o'clock, and we had a goodly number in attendance. The routine work was taken up concerning various communications which came in, one of which in particular I would like to call to the attention of the members of this general meeting: A request from Dr. George H. Simmons, who is now Emeritus manager and editor of the Journal of the American Medical Association, and chairman of the committee on relief of incapacitated or indigent physicians, in which he has asked that a report from this state be



forwarded to the committee referred to concerning any indigent or incapacitated physician who might be in this state. I wrote that most of us were in financial distress, but the committee was very wise in limiting the qualifications for receiving aid to incapacitation and indigency. I have received but one letter from a physician this year in which there was a request for financial aid, and in writing back I ascertained later that the whole matter had been cared for. But what the House of Delegates wish is that if in the knowledge of any member of the Society a worthy incapacitated or indigent brother is residing in his county, such member should communicate with the Secretary's office and it in turn will pass the information on to the Board of Trustees which will then dispose of the matter as it sees fit, because this Society has no fund available for such purposes. I presume the national committee has the idea of the creation of a fund for the care of incapacitated and indigent physicians. Therefore I ask that if any member knows of such an individual who is worthy, to kindly communicate with the Secretary's office.

"Mr. Chairman, at this time I move that the report of the House of Delegates be accepted and that a rising vote of thanks be extended to the profession of Council Bluffs for this wonderful, beautiful and most magnificent show of hospitality which we have had on every hand since, and really before, the beginning of the seventy-sixth annual session of the Iowa State Medical Society. Incidentally I might say that if such hospitality could be shown by a society in whose county the State Society has not met in forty-four years, what in the world would have happened if it had stayed away for 100 years?"

There were several seconds to the motion, which was unanimously carried by rising vote and applause.

President-Elect T. U. McManus was escorted to the platform and congratulated by the retiring President.

"Dr. McManus: Gentlemen, Friends: I will not take your time at this late hour, for I could say nothing more effective than that I most highly appreciate the honor that you have conferred upon me. I thank you—doubly thank you."

In inducting President-Elect Michael J. Kenefick into the office of President of the Iowa State Medical Society, the retiring President said:

"Through election to the presidency of this organization you have responsibilities to assume, but I know that you are able to assume them and the Society is willing to trust its prosperity with you."

President Kenefick: "I take this opportunity first of all of extending to you my sincere thanks for the honor which you have conferred upon me. When I look over the long list of ex-presidents, I cannot help but feel flattered to be numbered among them—it is an honor to be listed with this distinguished body of predecessors. I desire at this time to solicit your earnest cooperation for the com-

ing year. I know that this recognition did not come to me through any scientific contributions that I have made to the Iowa State Medical Society. I joined the Society just a third of a century ago at Des Moines, and have been in attendance at its meetings whenever possible during all these years. I owe much to the Society, the Society owes me nothing. For a third of a century this Society has been my postgraduate school, and I hope I may be spared for a few years more to continue meeting with this grand body of men.

"There is one feature of the program on the carrying out of which I want to congratulate my predecessor on his efficient program committee. In looking over the program I noted that they had called the young men out on the firing lines. It shall be my policy, so far as I have any influence in preparing next year's program, to continue to call upon you young men to take up the work that has been laid down by the older men. Our work is done, you are the boys who have to carry it forward, and I again congratulate the program committee upon the selections that they have made, distributing these all over the state. When we send out invitations to present papers at our next meeting, I hope that you will not, as the Secretary said, get stage fright or cold feet, but that you will consider it an honor to be invited to prepare a paper for presentation to this Society and will put forth your best efforts.

"There is one thing I want to pass on to you that some good old doctor said to me when I joined the State Society thirty-three years ago. I have forgotten his name, but have not forgotten what he said to me; 'Young man, I am pleased to see you here, this is your first meeting. I hope you will come again, I hope to see you often at the meeting of the State Society; get the habit, keep it up!' This advice I want to pass on to the young men here to-day—get the habit of attending the meetings of the State Society and keep it up. I know you will be abundantly repaid for your attendance upon these meetings. And remember that the coming year we shall endeavor to do a little work during the vacation, for the annual meeting is not all the work of the State Society. The Councilors, I hope, will remain active and do all they can to promote the best interests of the Society in their respective districts. We should not forget that we are not all the profession in the state; about one-third of the profession in the state of Iowa is outside the Society. It should be our earnest endeavor to gather in these men, when our organization will be a power for good in the state. We will then have better standing before the public and receive greater recognition.

"Finally, remember the next meeting and bear in mind that during the second week in May, 1928, all roads in Iowa lead to Cedar Rapids."

Dr. Powers: "This has been a very successful meeting, and if I have had any small part in its

success I want to thank all of you for your co-operation. You have made the Society what it is, and I repeat that I am proud of the honor that has been given to me. I am sure there is no greater social honor possible for a doctor in the state of Iowa than to become President of the Iowa State Society. To the older men I will say that I wish you continued success and happiness; to the younger men, that you have a long and difficult road, but by close attention, by enthusiasm, by hard work, you are all going to meet success. There are times when nothing will take the place of experience, and I am sure that among the older men of your neighborhood you can secure the benefit of that experience, and that it will always be gladly given to you."

Adjourned.

Tom B. Throckmorton,  
Secretary.

## **Transactions House of Delegates Iowa State Medical Society**

**Seventy-Sixth Annual Session, May 11, 12, 13, 1927,  
Council Bluffs**

### **First Meeting, Wednesday, May 11**

The House of Delegates met in the Elks Club and was called to order at 3:40 p. m. by President Powers.

Roll call showed the presence of 61 delegates and 14 officers, making a total of 75.

The President announcing that a quorum was present, the House then proceeded to the transaction of business.

The minutes of the Friday afternoon session held in Des Moines, having been published in the July, 1926, issue of the Journal, were considered to have been given sufficient publicity, and were accordingly held approved as published.

### **REPORTS OF OFFICERS**

The Secretary, Dr. Tom B. Throckmorton, presented his report, which, upon motion duly seconded and carried, was accepted and such portions of the same as referred to finances were referred to the Finance Committee.

### **REPORT OF THE SECRETARY**

**To the Members of the House of Delegates of the  
Iowa State Medical Society:**

The following report for the year 1926-27 is respectfully submitted:

With the celebration last year of the Diamond Jubilee Anniversary in commemoration of the Seventy-fifth Annual Session of the Iowa State Medical Society, organized medicine in Iowa reached its high water mark. Perhaps, aside from the meeting in 1850, at which the Society came into being, no more significant gathering of medical men and women ever occurred on Iowa soil. Congratula-

tions were heard on every hand from those in attendance, and letters were received from coast to coast felicitating the Society on its seventy-fifth birthday program. All in all it was a red letter day for Iowa medicine and one which, without doubt, has given our profession an enviable position among our sister state associations. Two radical departures from the usual course of procedure stood out preeminently last year: one, having invited guests from outside the state responsible for the program in practically its entirety; the other, having a pre-session meeting of the House of Delegates at which time most of the routine work was accomplished thus allowing the delegates an opportunity for attending the general meetings. While many expressed a desire for a continuance of this plan, both as regards program and pre-session delegate meeting, yet such a procedure would tend to do away with individual members contributing to the yearly programs, and, under ordinary circumstances, a pre-session meeting of the delegates does not seem to be warranted. After careful thought I feel quite sure that the routine custom, long adopted by various Scientific Committees, in the long run is the better plan to follow and when some special or unusual opportunity presents itself the Society can, with propriety and grace, expand its activities and rise to the occasion in a fitting manner. It may not be amiss to state at this point that the attendance last year was by far the largest in the history of the Society, there being almost one thousand to register.

### **Conference of State Officers and Secretaries**

In 1916, as the war clouds began to hover more closely over this country, an inventory of the medical profession of the state was taken with the view of having some definite information at hand in case the federal government should ask for medical aid. The following spring found the American Medical Association awake to its duties and for the first time a conference of the officers of the association and the secretaries of the various constituent state societies was held at the home office in Chicago. The value of such a conference, although having its inception as a war time measure, proved of such momentous importance to medicine that the American Medical Association has seen fit, since 1918, to make these conferences a yearly affair. As your Secretary, it has been my privilege and pleasure to attend every conference so held and I can bear testimony to the great good which these yearly meetings have done for medicine throughout the United States.

Thinking that such a plan might be of interest and of value to organized medicine in Iowa, it was proposed, to the Board of Trustees and some others having the welfare of the Society at heart, that a conference of the state officers and the secretaries of the component county societies of the Iowa State Medical Society be held soon after the Annual November Conference of State Secretaries, in



Chicago. After due and careful deliberation the Board of Trustees authorized the calling of such a conference and the same was held in Des Moines, December 17, 1926. Aside from the fact that two members of the Board of Trustees were unavoidably absent, the conference was voted an overwhelming success. The following program was given:

How Can County Society Meetings Be Made More Interesting?—Paul Van Metre, M.D., Calhoun County.

How Can the Interest of Individual Members Be Aroused?—Paul A. White, M.D., Scott County.

What Influences Do District Society Meetings Have on County Societies?—Round Table Talk.

What Can the District Councilor Do to Further the Interest of the County Societies?—Channing G. Smith, M.D., Councilor, Seventh District.

Why Is it Important to the Life of the County Society to Have a Competent Secretary?—Tom B. Throckmorton, M.D., Secretary, Iowa State Medical Society.

How Can the State Society Better Serve its Members?—John F. Herrick, M.D., Trustee, Iowa State Medical Society.

Fifteen out of a possible twenty of the officers and forty-eight out of a possible ninety-seven county secretaries were present, and it was the unanimous wish of those in attendance that the conference be made an annual affair. I would heartily concur in this wish, so expressed, and would suggest that the House of Delegates authorize, if needs be, the calling of a similar conference this year. Your Secretary, I feel, is not too optimistic when he states that of all the progressive measures advanced by this Society since his incumbency in office during the eleven years past, the conference held in Des Moines last December was by all odds the most practical piece of work to be credited to the Society during this period of time. Just so much as the officary of the State Society can show to the members of the various county societies its interest in their local affairs, just so will the State Society grow in strength and prestige; and no one will gainsay but that the logical contact between the state officary and county membership is through the secretaries of the various integral parts which go to make up our State Medical Society.

#### Membership and Dues

Those of you in attendance as delegates last year will recall that the finances of the Society were carefully considered and reported on by the Board of Trustees, and, in acting on the recommendation of the Board, through its chairman, the House of Delegates raised the dues of the Society from \$5 to \$7.50. Although our State Society had long been low in dues as compared to many of our sister state associations and was giving much more in return for the amount collected from each member than

was ordinarily given, yet the demands made on the treasury were so insistent that it became imperative to do something to check the inroad made on the savings fund of the Society. In other words, it became apparent to all that the business of organized medicine in Iowa could no longer be conducted in a fitting and proper manner on the small income per member. Most of the delegates last year on returning home reported the action of the House to their local societies, hence your Secretary was not deluged by a large number of inquiries as to why the dues had been raised. True, it is, some few secretaries and members of county societies made inquiry as to the whyfore of the increase in dues, but I have yet to recall a single letter that was derogatory of the action on dues taken by the House of Delegates last year. No doubt there are some physicians who have allowed their membership to lapse on account of the \$2.50 increase. Just what proportion this will be, I am not in a position to state at this time. Last year 2435 members had paid their dues prior to the Seventy-fifth Annual Session. To date over 2100 members have paid their dues, an apparent shortage of about three hundred. That more dues will be received during this year goes without saying. The important thing, however regretable it may be to have some loss of membership on account of increased dues or otherwise, is that several thousand more dollars have been turned over to the Treasurer already than of this time last year, and I predict a goodly sum will yet come in during the next few months. Certainly it is apparent that it is far better for the Iowa State Medical Society to render high grade service to a lessened number of members, than to render an inadequate and inefficient service to a membership fuller in number but less satisfied as to the quality of service it receives for lesser money.

#### Secretarial Duties

The work in the Secretary's office has not materially changed from that of former years. As county society interests and activities increased, so the duties of this office became more manifold. That some conception of the clerical work carried on by this office during the past year may be conveyed to your minds I will state that some 17,000 letters, exclusive of those sent out in the usual secretarial correspondence, and 28,800 Journal wrappers were addressed and mailed from this office. Such could not have been accomplished had it not been for the addressograph purchased by the Board of Trustees over a year ago, and the complete cooperation of all persons directly or indirectly responsible for the work of the Secretary's office.

And in conclusion I can only state that, after an uninterrupted service as your Secretary for the past eleven years, I feel very grateful to those who have from time to time given a word of encouragement, who by their actions have showed their approval, who by their generosity and charity have overlooked

faults, who by their loyalty to medicine have made possible many things emanating from the secretary's office, to all these, and to the entire membership of the best State Medical Society of these United States, I extend my heartfelt thanks of gratitude. If I have served the Society competently, I have but done my duty; if I have committed errors, they have been of the mind and not of the heart.

FINANCIAL STATEMENT  
IOWA STATE MEDICAL SOCIETY  
May 1, 1926 to May 1, 1927

Income	
Advertising .....	\$ 7,146.69
Reprints .....	529.29
Subscriptions—Non-Members .....	46.50
Sales .....	12.45
Honorarium .....	320.72
Dues .....	16,010.50
Miscellaneous .....	100.00
	<hr/>
	\$24,166.15
Disbursements	
(and Cash on Hand)	
Discount and Commission .....	\$ 1,001.19
Paid to Treasurer, A. C. Page .....	22,749.48
	<hr/>
	\$23,750.67
Balance in Bankers Trust Bank .....	415.48
	<hr/>
	\$24,166.15

Other matters in which the office of Secretary has been active are reported to the House of Delegates from other sources.

Respectfully submitted,  
Tom B. Throckmorton,  
Secretary.

The Secretary then rose to a question of personal privilege and moved that telegrams of felicitation and good will be sent to the following sister state societies whose annual meetings were coincident with that of the Iowa State Medical Society: Arkansas Medical Society, Medical Association of Georgia, Mississippi State Medical Association, Medical Society of the State of New York, Ohio State Medical Association.

On being duly seconded, the motion was carried.

The Secretary then rose to a further question of personal privilege and moved that a committee consisting of the last three past presidents—Smith A. Spilman, M.D., Frank A. Fuller, M.D., Oliver J. Fay, M.D.—be authorized to purchase a suitable floral offering and send the same to the Nebraska State Medical Association, in fifty-ninth annual convention at Lincoln, as a token of the best wishes and felicitations of the Iowa State Medical Society.

Upon being duly seconded, the motion was carried.

REPORT OF THE TREASURER

Dr. A. C. Page, Treasurer, being absent, his annual report was read by Dr. O. J. Fay, which upon motion duly seconded and carried, was accepted and referred to the Finance Committee.

Treasurer's Report  
For the Fiscal Year Ended April 30, 1927

TREASURER'S FUNDS		Iowa National Bank Checking Acct.	Des Moines Savings Bank & Trust Co., Savings Acct.
BALANCES IN BANKS—April 30,			
1926 .....	\$ 488.57		\$ 6,167.43
	O. D.		
FUNDS RECEIVED—			
Interest—Savings Account .....			116.98
Interest—Liberty Bonds .....			1,338.74
From Secretary .....	22,749.48		
Transfer of Funds .....	6,500.00		6,500.00
	8,400.00		8,400.00
	<hr/>		<hr/>
TOTAL FUNDS .....	\$20,360.91		\$ 9,523.16
DISBURSEMENTS .....			
	19,560.25		.....
	<hr/>		<hr/>
BALANCES IN BANKS—April 30,			
1927 .....	\$ 800.66		\$ 9,523.16

Respectfully submitted,  
Addison C. Page,  
Treasurer.

REPORT OF THE COUNCIL

The report of the Council was presented by the individual Councilors of the various districts, with the exception of the fifth district, their Councilor being absent.

Dr. George B. Crow, Councilor of the first district, being absent on account of illness in his family, his report was read by Secretary Throckmorton. Upon motion by Doctor Paul Gardner, New Hampton, seconded and carried, the Report of the Council was accepted as a whole.

Report of the Councilor, First District

In those counties in the district containing only small towns the county medical societies are not active and take little or no part in maintaining or developing professional standards. It seems to me that in two of those counties, at least, organizations would entirely disappear if state legal protection were discontinued. In two or three other counties perhaps one meeting is held during the year at which scientific papers are presented. This does not indicate, however, that scientific interest among the physicians in those counties is dead, or at least not among all of them, for many physicians in the chiefly rural counties quite regularly attend the more frequent scientific sessions of the nearby county societies with larger towns. It seems to me quite probable that this tendency is likely to increase when good roads are established. If and when that becomes true it will ultimately lead to a consolidation of county societies or to a continuation in the more nearly rural counties of a mere skeleton organization for the purpose of maintaining the legal status of the members.

The societies in Lee and Des Moines Counties are quite active and draw attendance from adjoining counties. Undoubtedly members from outlying parts



of this district attend at some of the nearby larger towns outside of the district. The annual meeting of the Southeast District Society draws attendance from every county in the councilor district. And, although several of the county societies exhibit very little activity, the individual members of the profession as a whole do take an active part in meetings that further scientific medicine.

I have heard considerable favorable comment on the activities of the medico-legal committee during the last session of the state legislature. There was some comment that the committee apparently became somewhat muddled in their recommendations to society members regarding changes in the Haskell law, but everyone was glad to know that there was a committee that tried to keep the individual members apprised of what was going on in the legislature.

Respectfully submitted,  
George B. Crow,  
Councilor, First District.

#### Report of Councilor, Second District

To the House of Delegates of the Iowa State Medical Society.

The Councilor of the Second District reports on the condition of the county societies as follows:

I sent to the secretary of each society in my District which includes, Clinton, Iowa, Johnson, Jackson, Muscatine and Scott counties, the following questionnaire:

Number of members? Clinton, 36; Iowa, 20; Johnson, 77; Jackson, 17; Muscatine, 28; Scott, 83.

Has your membership increased or decreased during the past year? Clinton, no; Iowa, no; Johnson, increased 10; Jackson, decreased 5, 1 death, 4 non-payment of dues; Muscatine, increased 4; Scott, increased 2.

Number of doctors in your county eligible, non-members? Clinton, none; Johnson, 67; Jackson, 5; Muscatine, 4; Scott, 21.

Are there more or fewer irregulars in your county? Clinton, 2 less by death; Iowa, about same number; Johnson, fewer; Jackson, fewer; Muscatine, same; Scott, fewer.

Are there sufficient physicians to care for the sick? All reply yes.

Any other medical organizations in your county? All reply no, excepting hospital staffs in Scott and Johnson counties.

Number of regular meetings during the year? Clinton, 4; Iowa, 3; Johnson, 7; Jackson, 4; Muscatine, 10; Scott, 9.

Number of special meetings? All reply none, excepting Muscatine reports one social function, dinner and special speaker; Scott on Wamstad bill.

Average attendance? Clinton, 80 per cent; Iowa, 65 per cent; Johnson, 20 per cent; Jackson, 40 per cent; Muscatine, 50 per cent; Scott, 50 per cent.

Has your society sponsored any public health activities, Sheppard-Towner, Tuberculosis Clinics, Heart Clinics? Clinton, Tuberculosis School; Iowa,

no; Johnson, no; Jackson, yes, all three; Muscatine, Tuberculosis and Heart; Scott, not last year.

If so have they been satisfactory, and beneficial to the doctors? Jackson and Muscatine reply yes.

Has your society taken any action in re periodic health examinations? All reply no. Scott county appointed committee who reported with recommendations. Address on subject by Dr. Elliot of Chicago.

Do you have a fixed fee for health examinations? All reply no.

Is there any dissension among your members? All reply no.

The per cent of attendance is slightly better than last year.

More meetings were held than last year.

Clinton has 30 members; Iowa, 20; Johnson, 77; Jackson, 17; Muscatine, 28; Scott, 83.

Last year, Clinton, 30; Iowa, 20; Johnson, 57; Jackson, 22; Muscatine, 26; Scott, 84.

Programs were all good, general interest and free discussions.

Respectfully submitted,  
D. N. Loose,  
Councilor, Second District.

#### Report of Councilor, Third District

Your Councilor for the Third District begs to submit the following report of his doings in behalf of county societies during the year now ended.

Bremer County Medical Society was visited in November. There were present a fine group of doctors, all of whom participated in a snappy scientific program, either directly or by discussion, giving the appearance of earnest activity.

Meetings are held twice a year, with hospital staff meetings every two weeks, the staff consisting of the same group.

Delaware County Society visited in December. There were present eight members. The meeting was one of business, followed by a talk in the interest of the state library. Meetings are not regularly held and interest is lagging. The difficulties of Delaware County are due to the fact that irregulars predominate, and they have not an 100 per cent membership. An effort will be made to stimulate interest at that place.

Dubuque County Society visited in November. There were present about sixty members who held a lively business meeting, it being their annual. This society is having some trouble with irregular practices among a few of its members, but they seem well able to properly care for them. On the whole the society is alive, meets quite regularly and are making a sincere effort to have their members stick to the straight and narrow.

Wright & Franklin counties held a joint meeting which was the annual for both. There was a pleasant aggregation of thirty-nine present on a very rough winter night, a good social program was held in which all participated, followed by election of

officers and regular business. Both societies were having difficulties with things irregular, as compared to the regular standard of medical practice, yet both have such matters well in hand and appear thrifty, though somewhat irregular as to meetings, yet on the whole well up to the average.

Blackhawk county holds two meetings a year, the January meeting being the annual which was the meeting visited by the Councilor. The meeting was strictly one of business, following a dinner, was well attended and all indications are that the society is on a thrifty basis. While this particular organization meets but twice a year, the Waterloo Medical Society to which all belong meets monthly and at such times produce scientific programs of the highest quality and deepest interest to all doctors in the locality. Invitations to these meetings are most generously extended to all within reach.

Buchanan, the home society of your Councilor, holds four regular meetings yearly, dinner and program. All members are also members of The Peoples Hospital Staff of Independence, and meet monthly during the year, for history review and criticism, also the discussion of interesting cases. The members are cordial, and make every effort to do their part in practice as laid down in the Oath of Hippocrates. We have no disturbance and we are not courting one.

It is with regret that your Councilor reports that he was unable to visit Butler county. All letters to them were not answered and no knowledge of conditions was learned. It will be the effort of the Councilor to give this county particular attention and make every effort to stimulate interest in the work of the county society.

Now that the territory and its needs have been learned it is the sincere hope of your Councilor to be able in the future to render a better report in all details.

Respectfully submitted,  
Fred F. Agnew,  
Councilor, Third District.

### Report of Councilor, Fourth District

In reporting the Fourth District, which consists of ten counties, its respective societies are in good order. The following is a statement from all but Allamakee and Clayton counties.

COUNTY	Number of Meetings	Number of Members	Average Attendance	Non-members	Ineligible
Mitchell -----	12	12	8	3	0
Floyd -----	4	14	10	3	1
Winneshiek --	2	12	10	4	0
Chickasaw ---	4	13	10	0	1
Howard -----	2	13	8	0	0
Cerro Gordo--	10	44 (2 honorary)	30	4	4
Fayette -----	6	24	24	2	0
Worth-----	0	5	0	2 ?	0
Allamakee -----	..	..	..	..	..
Clayton -----	..	..	..	..	..

Respectfully submitted,  
Paul E. Gardner,  
Councilor, Fourth District.

### Report of Councilor, Sixth District

Davis County has an active organization, the physicians show a good interest, have a membership of twelve, all the physicians but one in the county. They had six meetings and averaged eight in attendance.

Wapello has a strong medical society with a membership of thirty-eight, had eighteen meetings and an attendance of twenty-two. The county has two fine hospitals, a large number of able medical men and practically all the eligible physicians of the county take an active part in the society.

Mahaska is well organized with a membership of thirty-one out of thirty-four physicians. They had ten meetings and a fair attendance. This county is well equipped with hospitals and able men to take care of the work.

Poweshiek County Society has sixteen members out of twenty-one physicians, have had four meetings with attendance of twelve. This county has two good hospitals and plenty of physicians to give good medical service.

Jasper County has thirty-four physicians and twenty-four members, had three meetings and an attendance of eleven. This county has two good hospitals and its towns are well supplied with physicians.

Monroe County has fifteen physicians and eleven members, had four meetings and an attendance of six. This county shows a decrease, some of the towns formerly with physicians now have none.

Keokuk County has twenty-eight physicians located in eleven towns, while this county has no large medical center, the people are well cared for by able physicians well distributed all over the county.

There were three deaths during the past year. Dr. A. O. Williams of Ottumwa, aged seventy-six; Dr. Wm. W. Eastman of Sigourney, aged seventy-four, and Dr. H. C. Eschbach of Albia, aged seventy. Dr. Eschbach was a past president of the State Society.

There have been six new doctors and the district has seven medical students.

The district has one hundred and ninety physicians with an average age of fifty-four years. There are only nine physicians under thirty-five years of age, showing a very small per cent who have graduated during the last ten years.

Respectfully submitted,  
Samuel T. Gray,  
Councilor, Sixth District.

### Report of Councilor, Seventh District

There are six societies in this district, of which three are very good, two good and one but fair. I expect to appoint an assistant Councilor in each county for the coming year and hope that this may assist in arousing an increased interest in the counties that are not receiving the benefits possible from the local organization.



During the year I have gone over the district thoroughly in an attempt to interest every eligible doctor in the organizations of medicine and with the exception of Polk county every physician has been seen and asked to join with us. There are some individuals, few in number, who are persona non grata to the officers of the society and these men have not been approached. Always in the past and in the future I expect to be guided in this or in similar situations by the advice of the president and secretary.

Mindful of the adverse criticism directed toward the Council and casting about for help and assistance I wrote the secretaries of all the state societies asking for information concerning the activities of their Council either individually or as a whole and for a copy of that part of their Constitution dealing with the Council.

A mass of very interesting information has been received and I have a copy of the constitution and by-laws of practically all the states in the Union.

In going over these constitutions there are many distinctions in the different Boards of Council but they may be roughly divided into the following classes:

One, such as exists in Alabama, where the Councilors act as a State Board of Examiners, a State Board of Censors and a State Committee of Public Health besides such duties as our Council have.

Again in Massachusetts a Councilor is appointed for each twenty members or major fraction thereof in a district society. They meet regularly three times a year and transact all the business of the State Society. Continued absences from these meetings are regarded as reasons for changing representatives. This plan of government of the organization was made by Chief Justice Sewall of the United States Supreme Court in association with one of the fellows of Massachusetts and it has functioned most efficiently for 124 years.

In others the function of the Trustees and Councilors are combined in the Council and the Councilors elected by the House of Delegates, making them in fact an executive committee of the House. These men receive \$10 per diem. Our Board of Trustees was kind enough to send me into a meeting of the Illinois Council and I was amazed at the amount of work done. A full Council was present, state committees reported. The legislative committee had its plans all laid for the coming session of the legislature. The lay education committee reported over one thousand addresses delivered before Luncheon Clubs, Parent-Teachers Associations, Chambers of Commerce, etc., at an expense to the society of about forty dollars.

In my opinion should any change here ever be deemed advisable the Illinois plan seems most suitable to our needs.

Many years ago when our state association was in its infancy a model constitution and by-laws was promulgated and Iowa in common with some thirty other states adopted it. This Constitution states

that the Councilor shall visit each county in his district once a year, etc. Also for inquiring into the condition of the profession and for improving and increasing the zeal of the county society and its members. This passage as we now stand both constitutes and limits our efforts.

As I have stated before, your Council is not an executive, neither is it a legislative body. Our functions may be called judicial and if so we are without a court and without a client.

The reports from states having a Council such as ours have all the same tone. The Council is a trouble chaser, an honorary body, does nothing, isn't worth a damn. Not a valuable suggestion was received from one of them. The Board also sent me to the Conference on Public Health, sponsored by the American Medical Association and presided over by our President, Wendell C. Phillips.

Sixty years ago a Mr. Peabody gave sixty thousand dollars to promote the cause of public health. Now in the United States the different funds and foundations have an endowment of three billions of dollars. Heretofore the work done has been preliminary and carried on chiefly in the South. We have some fifteen hundred counties whose inhabitants receive two hundred dollars or less per year and three hundred and thirty of them have been filled with full time health organizations. The money has been given by laymen and the counties have been organized by laymen.

The foundations have the money, the preliminary work is done and the managers are anxious to show results. They have a theory and they are ready to go. The attitude of the physician is forgotten in the proposed benefit to the whole people. It was broadly hinted that if medical men were willing to help shape the policies all well and good and if not the machinery was there to go ahead anyway.

The general public is interested in public health as it has an inherent right so to be. One evidence of this interest is the seventeen syndicated health articles now appearing in the press. The average sickness is seven days per person per year at a loss of ten dollars each for medical aid and a twelve dollar labor loss, making a total of twenty-two dollars for each one of us. The death rate in 1880 was twenty per thousand and now is eleven and nine-tenths. With these familiar facts constantly dinned into the public the field is fertile for almost any plan to gain momentum, provided it holds out real or imagined redress from human ills. It was stressed particularly that the ordinary doctor does not know just what is going on in these social organizations. Hugh Cummings, surgeon general, U. S. P. H. S., stating that in thirty years of public health service he had never had a private physician intrude.

These volunteer health organizations from the East are anxious to come here and help start public health work.

The question arises what portion should be done by private physicians and what per cent borne by the public at large.

My personal reaction to all this is that these health organizations will be subservient only when we have a state wide organization powerful enough to maintain a safe lead and intelligent enough to give sound advice in these matters. The lay organizations must realize that medical men will promote no cause not strictly ethical.

I would urge that a committee be appointed to study the whole subject of public health and the relations of the physician thereto and that we be kept informed of the different angles and ramifications of this subject.

I would also strongly urge the formation of a lay education committee fashioned perhaps after the one in Illinois. This committee should provide a speakers' bureau taking in the name and subject of every physician in the state who is competent and willing to devote a little time either before a medical meeting or lay organization. I know a lot of men in my district who can give a good interesting understandable talk before anyone.

During the year I have had some correspondence with Women's Clubs. Have dropped this feeling that perhaps I did not have the authority to proceed. It would appear to me that this magnificent organization that the women have developed is a mighty good place to start a campaign for betterment of the public health that will benefit not only the whole people but also redound to the credit of the profession.

Have started an association, primarily for the purpose of assisting our legislative committee, that I believe in time will show some results. Have also attempted to assist the State Board of Health and I feel that our society should have a much closer relationship with this Board as well as the Medical Department of the State University.

During the past year I have spent eleven full days, five half days and any number of evenings and odd hours on this work and have enjoyed it. Feeling that if I can help add one thread to the "shining woof and shadowed warp of the tapestries of time" that I have amply been repaid.

Respectfully submitted,

Channing G. Smith,  
Councilor, Seventh District.

#### Report of Councilor, Eighth District

I wish to make the following report as Councilor of the Eighth District:

About the first of April I received a communication from Dr. Tom Throckmorton, State Secretary, and sponsored by the legislative committee of the State Medical Society, asking me to appoint Assistant Councilors in each county in the Eighth District. I immediately made the appointments and all of them agreed to help me in the work. I do not know how much work they have done as your legislative committee would be more familiar with what they have done than I would. I also made use of these Councilors to give me a report on their county organizations. I was only able to visit four

out of the eleven Medical Societies. The four I visited were Wayne, Appanoose, Ringgold and Decatur, the latter of which is my home county.

I will now give you the reports, as given to me by the Assistant Councilors.

Dr. Wm. F. Amdor, assistant councilor, Carbon, Iowa, Adams County—Reports number of members in society five, last year the number was six. Had four meetings the past year which were well attended and they used local talent. Under remarks he says, we sent our Secretary to the meeting of Secretaries at Des Moines.

Dr. Chas. A. Hickman, assistant councilor, Centerville, Iowa, Appanoose County—Have 22 members in their society, last year it was 21. Have had four meetings of the society, their meetings have been well attended and they used both local and outside talent.

Dr. Geo. I. Armitage, assistant councilor, Murray, Iowa, Clark County—Have 6 members in their society and had the same number last year. They have had two meetings and used local talent.

Dr. Bert L. Eiker, assistant councilor, Leon, Iowa, Decatur County—Number in society 12, last year the number was 17. Had two meetings in 1926, meetings have been well attended, used both local and outside talent. Attended the meeting of the County Medical Secretaries in Des Moines.

Dr. Geo. F. Niblock, assistant councilor, Derby, Iowa, Lucas County—Have 14 members in society, same number last year. Had two meetings both well attended, used both local and outside talent. Under remarks he says, our society had dinner at Hotel Chariton the first Tuesday of each month, this gets the members together and we talk over matters of interest.

Dr. J. Frank Aldrich, assistant councilor, Shenandoah, Iowa, Page County—Number of members in society 24, last year the number was 25. Dr. T. L. Putnam deceased. Have had three meetings the last year, meetings well attended, talent is mostly outside. Under remarks he suggests a traveling Auditor or Councilor who would date each county, not at their pleasure, but at his best railway schedule dates. Have the county members have a program, would create more interest.

Dr. Albert J. Watson, assistant councilor, Diagonal, Iowa, Ringgold County—Number of members in Society 7. Number of meetings five, have been fairly attended and they use outside talent. Under remarks he said, that outside talent Dr. Ryan, Dr. Weingart, Dr. Powers and Donald Macrae, gave excellent talks to the society.

Dr. Geo. W. Rimel, assistant councilor, Bedford, Iowa, Taylor County—Number of members 13, last year the number was the same. Have had eight meetings, average from 8 to 10 at a meeting, use local talent.

Dr. Leslie Lamb, assistant councilor, Lorimer, Iowa, Union County—Number of members, 21, same as last year. Had two or three meetings which were



well attended. They use both local and outside talent.

Dr. Ben S. Walker, assistant councilor, Corydon, Iowa, Wayne County—Number of members in society 12, last year the number was 15. Meetings are well attended when the roads are passable. They use both local and outside talent, and their secretary attended the meeting of the County Secretaries in Des Moines.

I think that the idea of assistant councilors is an excellent one and one that should be continued.

The Eighth District is about one-half the distance across the state of Iowa, if not more and it would be almost impossible for a councilor to visit all the different societies, for my part I cannot see why he would need to visit all of them unless they need his help or should call for him for counsel. Southern Iowa roads were impassable almost for two and a half months last fall, and you all know what kind of weather we have had this spring.

I have made no report on Fremont County, as I could get no report from the assistant councilor of that county.

Respectfully submitted,  
Fred A. Bowman,  
Councilor, Eighth District.

#### Report of Councilor, Tenth District

Of the thirteen county medical societies in the Tenth District, all are in good working condition with two exceptions. They are Hamilton and Humboldt County Medical Societies. In 1926 Hamilton County Medical Society had thirteen paid up members and in 1927, only one, as shown by the last report and they are not represented with a delegate. The cause of this was undoubtedly due to inactivity and carelessness on the part of the secretary. In the near future I hope to meet with them and try to get them to elect a new secretary, hoping thus to develop more interest among their members.

Humboldt County Medical Society had six paid up members in 1926, and the same in 1927, and have a delegate at this meeting. This is a small county with very few doctors and it has been hard to get enough interest to hold any meetings. The officers just now are expecting to be able to have at least two meetings a year. Some of the members live in towns close to the line of adjoining counties and affiliate with larger societies nearby. The influence of the District Society also causes lack of interest in the home society, but we are sure at this time that this county society will keep up its organization.

In all the other eleven county societies the conditions and interest are good, and while in the last year there has been a dropping off of members not sending in their dues in proper time, which I think is the fault of the county secretaries. This need not occur again if the secretary will call it to the attention of each member at the proper time.

I may say that on the whole, I think there is a better feeling among the profession and more in-

terest taken in organized medicine, than ever before in the Tenth District. I feel like enjoining every county medical society in this district to be particularly attentive, when electing the secretary, to get the best man in each society for the job; one who will make it a business to develop interest, and who will see that each member is active in participating in the meetings.

Respectfully submitted,  
Watson W. Beam,  
Councilor, Tenth District.

#### Report of Councilor, Eleventh District

The Eleventh District physicians have in the past year done excellent work in sanitation and preventive medicine with the gratifying result of materially lessening the amount of general sickness, or sick units, and to shorten the period of the average unit possibly 25 per cent. I have visited every county in the district and talked with all I could see in their offices regarding the general condition of the profession. The outstanding fact has been the marked decrease in pneumonia and the mildness of type where it has occurred. I find there is general satisfaction with the district society plan. These meetings are well attended, smooth out wrinkles and allay friction, as well as being very beneficial in keeping up interest in advanced thought and scientific medicine. Practically all counties have private hospitals where considerable specialized work is being done. Notwithstanding this effort to hold work at home there is an ever increasing number of patients going to the larger places, especially Sioux City, for highly specialized treatment. The Sioux City hospitals are well equipped with modern facilities and very creditable work is being done there.

Very few young men are locating in the small towns, in fact there a net loss in the district. Diphtheritic immunization is going on slowly. This work has been attacked in the public press by the osteopaths and chiropractors who claim many lives have been sacrificed and innumerable injuries to limbs produced by these treatments. The publication of bad results at the University Hospital in the American Medical Association Journal by members of the faculty of our State University at Iowa City has made the work of immunization more difficult in the eleventh district. The reporting of communicable diseases appears to be burdensome to many physicians and I am satisfied some mild cases and many more of the less menacing diseases like chicken-pox and mumps are never reported. Many of the reports made by physicians to their mayors are assigned to the waste basket and never reach Des Moines.

The severe drouth and crop failure in northwestern Iowa has affected the income of nearly every physician in this district and has been a real hardship. In calling at offices through the district I find many physicians are negligent in displaying signs. The dentists, osteopaths and chiros all have signs that a stranger in the town readily sees, but often

I found it necessary to enquire where the doctor's office was located.

Every office I visited presented a comfortable appearance, was reasonably equipped for giving office treatments and had well supplied book shelves. The one outstanding shortcoming is the lack of facilities for doing laboratory work.

Neglect of the test tube and microscope will eventually give us the County Unit Plan with a county health officer in the court house to do this work for the people.

Respectfully submitted,

G. C. Morehead,

Councilor, Eleventh District.

Owing to the illness of Dr. George E. Crawford, Councilor Fifth District, Dr. Channing Smith, Granger, moved that a message of good will and hope for a speedy and uneventful convalescence be sent. Seconded and carried.

The report of the Board of Trustees was presented by Dr. O. J. Fay, Des Moines, Chairman of that body. Dr. Kerr, of Fremont, then moved that the report be accepted, which, upon being seconded, was accepted and placed on file.

#### REPORT OF THE BOARD OF TRUSTEES

In submitting the report of the Board of Trustees, we have to report some few things accomplished, but of greater importance, of more vital interest to the profession, are various matters which we feel should be brought before the House of Delegates for determination of the future policy of the Society.

During the past year, we have lived within our income, the only sound financial policy for any organization, and yet have been able to meet some unusual expenses that have arisen or that have been voluntarily incurred within the past year. Whereas in the preceding year the Society had a deficit in current income of some \$7,000, this year we have a surplus, nominally of some \$5,000, but with the outstanding bills paid, of some \$3,500. Such a surplus is to be reckoned almost a necessity if the Society is to be placed upon a sound business basis. Included in the expenses for the past year is a sum of approximately \$4,500 for medical defense, and we are happy to be able to report that in the future the cost of medical defense should be only a fractional part of this sum because of a very favorable agreement which we have been able to affect with the companies which insure some 75 per cent of our membership. In the future, the entire expense of legal counsel in all malpractice suits brought against members insured with these companies will be borne by the insurance company, whereas in the past such expense has been borne by our Society. It is hoped and earnestly urged that all Society members protect themselves against an adverse judgment by securing insurance in some sound company. The medical profession of the state is indebted to the medico-legal committee for its earnest

cooperation and able service in the past, and should continue to avail itself of the services of this committee, which represents not only the member under fire, but also the interests of the medical profession of the state. Though the expense of legal counsel will be borne by the insurance company, such counsel will in the future, as in the past, work in harmony with the medico-legal committee.

The greatest need of our profession today is active co-operation. The medical profession as a unit would have great power, but we doctors as individuals are negligible, and are forced to realize this again and again. The profession of the state feels that our compensation law has been framed to protect the laboring man and at the same time to safeguard the interests of industry, but that the rights of the doctor, who practically is an important third in industrial injury cases, have been ignored. It is not strange that this should be so, since the doctor alone, of the interested parties, was not represented, was not consulted when the law was framed. The physician has been vehement in his denunciation of the law, but it is safe to assume that when the law is again amended, he will again be conspicuous by his lack of representation and that little attempt will be made to adjust his grievances. He may continue to nurse his individual grouch in silence, or he may air his woes at length at meetings of his county society; in either event his protest will not penetrate to the legislative halls, and once more the question of just compensation for the physician will receive but scant consideration from industrial, insurance, or labor interests—unless the doctor learns that as a medical unit he is all powerful, but as an individual he means nothing to our legislators.

Yet even so the financial losses which will accrue to the profession as the result of any injustice in the compensation law are negligible as compared to the losses which may result from the active campaign being carried on by various left-handed schools of healing. During the past session of the legislature, an active lobby failed by a small margin only to secure for such a school essentially all the privileges of medical practice. The cost of this lobby is said to have been \$5,000.00, and rumor has it that the interests back of that lobby count the money well spent in preparing the way for a more successful campaign two years hence. The physicians of the state can materially assist these practitioners in achieving their hearts' desire by continuing to pursue the policy of letting the committee on legislation do the work, each individual member of the Society refraining from making any effort to reach their local representatives in response to appeals from this committee. We cannot expect that members of this committee living outside the capital should desert their practices, and devote much time to active lobbying. Even those members of the committee who reside in Des Moines must spend some time with their professional duties. Quite aside from this, however, the legislators say frankly that they are little concerned with the



wishes of outside their home districts—they must listen to the voice from home; they must hearken to the wishes of their local physicians, particularly if these physicians have sought and secured the support of their fellow citizens. In reality, the legislator knows that there is little likelihood of his hearing a voice from home; the appeal from the legislative committee will probably find its way to the doctor's wastepaper basket, and the doctor will promptly forget the matter of communicating with his representatives—at least until he finds that under the existing compensation law he can collect only a fraction of the sum to which he is entitled, or that some so-called practitioner, who has spent in preparation for his career as healer a fraction of the time and money required in securing a medical education, has invaded his territory, is buncoing many of the patients for whose physical welfare he has felt himself morally responsible.

The next legislative session may see the introduction of a law requiring the same basic scientific training from everyone who seeks a license to practice the healing art according to any school, method, or pathy. The medical profession has welcomed the establishment of a high standard for those who would practice medicine, but it feels that for the sake of the public quite as much as for its own sake, this same high standard should apply to anyone who takes the responsibility of human life in his hands. In theory, then, the medical profession will undoubtedly be behind any measure which seeks to establish a uniform high standard, but in practice, if the past be any criterion, the support of the profession will be little felt. The opponents to such a measure may feel confident that their own lobby will have little difficulty in offsetting such half-hearted support as may be given the measure by the doctors of the state. It is quite probable that they are right, and that two years from now the physician will find that the practitioner who has spent fewer months in preparation for his work than the physician has spent years, enjoys all the prerogatives which he himself enjoys. It is quite probable—but it is not inevitable, if we as a society, as a unit, finally awaken to our opportunities, if at last we take an active interest in matters which are of vital importance to our professional life. We have seen how impotent is a medico-legal committee in influencing legislation—an impotence that is in large measure due to the failure of the profession at large to give its active cooperation. There is nothing which can take the place of such cooperation, and the future of the medical profession in Iowa depends in large measure upon its development. With the active cooperation of every member of this Society, directed by a skilled lobbyist, we should command the consideration due our profession, we should have an effective voice in the drafting of laws which affect our professional interests.

Such a skilled lobbyist cannot be recruited from the ranks of the profession. While there may be those among us that prove the exception to the old

rule that doctors are lacking in political acumen, there is no one actively engaged in the practice of medicine who could afford to take active charge of our interests during a legislative season, for we should be represented by someone who is not only constantly present at the state house while the legislature is in session, but who is also active during those daily, off-hour, unofficial sessions in less stately chambers where the major part of the legislative work is done. Keeping in constant, close touch with legislative affairs, such a lobbyist, working under the direction of the legislative committee, should be able to command the active support of each member of the society at the time when that support would be of the greatest strategic importance.

Since we must acknowledge that in the field of politics nothing is to be accomplished without organized political machinery, there can be but one objection urged against such a lobby. That objection is the expense of such a lobby, an expense which might be from five to seven thousand dollars. Considered as a whole, such a sum sounds large, yet it represents but two or three dollars per member, or a fractional part of the sum which may be lost to the individual yearly through the operation of a compensation law in the drafting of which we had no voice. Assuredly there is no member of our society who could not well afford to spend three dollars or thirty dollars, or even three hundred dollars, to block the passage of bills which would admit to the practice of medicine the graduates and pseudo-graduates of any and every so-called school of healing. From the standpoint of financial returns, money thus spent will pay the highest of dividends, and from the standpoint of professional duty, we may have the additional satisfaction of knowing that we are safeguarding the public. During the coming year, this matter might be discussed before our county societies in order that the next session of our Society may see some active policy adopted to safeguard its interests.

We need not postpone the beginning of an active campaign until the legislature convenes two years hence, for there is work close at hand waiting to be done. We should begin, and begin now to educate the public. Such educational work, through the press, through personal contact, through county societies, and some of these societies, that of Cerro Gordo County for instance, are even now engaged in active educational campaigns.

Respectfully submitted,

Oliver J. Fay, Chairman,  
Vernon L. Treynor,  
John F. Herrick.

#### REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Dr. William Jepson, Sioux City, stated that inasmuch as the Dallas Session of the American Medical Association occurred prior to the May Session of

the Iowa State Medical Society last year, the report of the Dallas Session was given last year, and consequently no report was to be made this year by the delegates.

Under the head of Standing Committees, Dr. D. S. Fairchild, Chairman, stated that the Medico-Legal Committee had no report to be made at this time.

Dr. W. W. Pearson, Chairman of Committee on Public Policy and Legislation, asked that the report of the Committee be deferred, and made the first order of business at the Thursday morning meeting of the House, following roll call. There being no objection to this request the Chair ruled that the report of this Committee would be made at the hour requested.

Dr. Tom B. Throckmorton, member of the Committee on Constitution and By-Laws, presented the following amendment:

REPORT OF THE COMMITTEE ON CONSTITUTION AND BY-LAWS

Be it resolved that Section 5, Chapter VI, of the By-Laws be amended by adding the following after the word "officers" in line 24, page 341, amendments published in July, 1926, issue Journal of the Iowa State Medical Society—"delegates to the American Medical Association, standing or special committees"—making the completed sentence read:

"Should a vacancy occur, on account of death or otherwise, among the general officers, delegates to the American Medical Association, standing or special committees of the Society, the Board of Trustees may fill such vacancy until the next Annual Session of the House, unless otherwise provided for in this Constitution and By-Laws."

This report, in accordance with the Constitution and By-Laws, was laid on the table for consideration at a future meeting.

The report of the Publication Committee was presented by Dr. D. S. Fairchild, Editor, which was accepted and placed on file.

REPORT OF THE COMMITTEE ON PUBLICATION

The Committee on Publication beg leave to present the following report on the Journal for the year 1926.

The most important fact to be noted is the falling off on the number of pages.

Published in 1925	680
Published in 1926	550
Decrease of pages	130
The number of papers in 1925	142
The number of papers in 1926	107
Decrease of papers	35

This decrease was due to the fact that the Diamond Jubilee years reduced the number of State

Society papers, and at times had published up to the limits of papers on hand.

SPECIAL COMMITTEES

Under the head of Special Committees no report was made concerning the Medical Library Committee, or the Committee on Military Affairs.

The report of the Hospital Committee was made verbally by Dr. Walter L. Bierring. Dr. Tom B. Throckmorton moved that the report of the Hospital Committee be accepted and placed on file. Seconded and carried.

MEMORIALS AND COMMUNICATIONS

Secretary Throckmorton then read a letter from Dr. Mae Habenicht, Executive Secretary of the Federation of Womens' Clubs, requesting that a sum of \$300 be granted by the Iowa State Medical Society for furthering the interest in the work of health examinations sponsored by the Board of Health and the Federation. Inasmuch as any request for a specified sum of money must first be approved by the Board of Trustees, this communication was referred to that body for its disposal.

A communication from the Secretary of the Cerro Gordo County Society was then read by the Secretary. This communication referred to the fact that the Cerro Gordo County Medical Society had voted to take in the physicians of the Worth County Society.

The Secretary suggested that action on this communication be deferred until a future meeting of the House.

There being no new business to come before the House the same adjourned at 5:30 p. m.

The delegates from the various congressional districts then assembled to select a member from their various districts to act as members of the Nominating Committee. The Committee reported was as follows:

- First District—Coral R. Armentrout, Keokuk.
- Second District—J. F. Ritter, Maquoketa.
- Third District—W. L. Hearst, Cedar Falls.
- Fourth District—W. E. Long, Mason City.
- Fifth District—Thomas Suchomel, Cedar Rapids.
- Sixth District—Evan S. Evans, Grinnell.
- Seventh District—John H. Peck, Des Moines.
- Eighth District—W. F. Amdor, Carbon.
- Ninth District—E. A. Moore, Harlan.
- Tenth District—D. J. Townsend, Lohrville.
- Eleventh District—James McAllister, Odebolt.

Second Meeting, Thursday, May 12

The House of Delegates met in the Elks Club and was called to order at 8:00 a. m. sharp, by President Powers.

Roll call showed the presence of 10 officers and 51 delegates, making a total of 61.

The President announcing that a quorum was present, the House proceeded to the transaction of business.



The reading of the minutes of the first day's meeting was dispensed with.

President Powers announced that the report of the Committee on Public Policy and Legislation having been made the first order of business following Roll Call, Dr. W. W. Pearson, Chairman, was called upon to make his report.

#### REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

To the President and House of Delegates of the Iowa State Medical Society:

Mr. President:

The Legislative Committee of the Iowa State Medical Society offers the following report for your consideration.

During the Forty-second General Assembly of the Iowa State Legislature there were twenty-one (21) bills introduced which would affect the physicians and hospitals of Iowa. The following is the list:

Senate File No. 136: An act to present to the State Department of Health satisfactory evidence that applicant has completed one year of internship in a hospital approved by the State Board of Medical Examiners. No hospital shall be approved which does not provide the internship without expense to the intern. Passed.

Senate File No. 319: An act to require physicians and certain authorities to make report of the injuries from the discharge of firearms, and to provide penalties consequent on a failure to make report. Failed.

Senate File No. 229: An act to amend Chapter Two Sixty-nine (269) of the Code relating to duties of superintendents and trustees of hospitals relative to surgical operations. This bill to require the superintendent of every County Hospital to save all tissue removed at every surgical operation in said hospital to be sent to the pathological laboratory at the State University at Iowa City. This bill only provided that specimens be sent from County Hospitals. The Legislative Committee did not feel that there were enough County Hospitals in the State to recommend the passage of this law and that the hospitals of the State of Iowa are standardized according to the recommendations of the American College of Surgeons which require the examination of all tissue. Failed.

Senate File No. 224: An act to require that all windows above the second floor of hospitals and asylums for the care and treatment of sick or insane patients be provided with grates, bars and screens, and providing penalty for violations. Failed.

Senate File No. 63: This bill provided for the striking out of the following: "None of whom shall be physicians or licensed practitioners." This means that physicians cannot serve on the Board and the bill was for the purpose of extending this privilege to the physicians. Failed.

Senate File No. 137: An act providing for the appointment of a county health officer, public health nurses and other assistants, the manner of their selection, the compensation therefor, and prescribing the duties thereof. Failed.

Senate File No. 349—House File No. 431: An act to amend Section Sixty-three (63) of the Code of 1924, relating to the construction of statutes and defining the word "physicians" and other like terms. This was one of the osteopath bills. This bill would have given the osteopaths the same privileges as the physicians. Failed.

House File No. 159: An act to protect the public from infection from persons suffering from tuberculosis and to provide the procedure under which such diseased persons may be committed to institutions for care and treatment. Failed.

House File No. 202: This bill provided for compensation of Ten Dollars (\$10.00) a day for the members of the Public Health Committee and traveling expenses. Failed.

Senate File No. 138: An act to amend the law as presented in Section Twenty-four Hundred and Sixty-five (2465) of the Code of 1924 so as to authorize each examining board connected with the State Department of Health to maintain membership in the respective national organizations of such boards, and making an appropriation to the membership fees therein. Failed.

House File No. 297: This bill was relative to the practice of osteopathy and surgery in which the osteopaths asked the privilege of prescribing medicine including anesthetics, antiseptics and serums. Failed.

House File No. 414: An act providing for the equipment of buildings used as hospitals, to include safeguards for patients in the form of permanent and removable bars and heavy screens for the windows of rooms where patients are confined. Failed.

House File No. 474: An act to repeal Sections Twenty-five Hundred Eighty-four (2584) and Twenty-five Hundred Eighty-five (2585) of the Code of 1924, relating to the practice of embalming, and to enact substitutes therefor. Failed.

House File No. 438: An act to repeal Sections Thirty-three Hundred Sixty-one (3361), Thirty-three Hundred Sixty-two (3362) and Thirty-three Hundred Sixty-three (3363) of the Code of 1924 and to enact substitutes therefor, relating to the sterilization of certain people, and to create a State Board of Eugenics and defining its powers and duties. Failed.

Senate File No. 56—House File No. 30: Barber Bill—required the licensing of all barbers, requiring a physical examination of shops by Board of Health. This first bill gave the barbers the right to remove warts and moles. This section was stricken out by the Public Health Committee. This bill exempted barbers who resided in towns of 2,000 or less. On this account, the governor vetoed the bill.

A second barber bill was then introduced and passed which required the physical examination of

all barbers and licensing of same and the shops to be inspected by the Department of Public Health.

Senate File No. 158—House File No. 124: Practice of cosmetology or beauty parlor bill also passed, licensing same and placing them under the Department of Public Health.

Senate File No. 262: Amending Section Eighty-six Hundred Seventy-one (8671) of the Code by striking out all of the last section requiring medical examination of applicants for life insurance.

House File No. 283: Wamstad Bill. Failed.

House File No. 283 or better known as the Wamstad Bill should be thoroughly discussed at this time.

A letter was sent out from the Woodbury County Medical Society to all the secretaries of the different county medical societies, relative to the proposed changes in the Perkins-Haskell-Klaus Law. This letter was read before the Polk County Medical Society. The Society in turn appointed a Committee to investigate the charges set out in this letter. The Committee consisted of Drs. W. E. Sanders, W. E. Wolcott, J. E. Kessell, J. A. Downing and Thos. A. Burcham. This was on a Tuesday evening—the following Friday the original House File No. 283 was introduced by Wamstad. The above committee of the Polk County Medical Society after discussing the original bill, decided that it was not the function of the Polk County Medical Society alone to either support or oppose this bill, but that it was a question to be decided by the Iowa State Medical Society. The Committee representing the Polk County Medical Society objected to the original Wamstad Bill as it provided for hospitalization in any reputable hospital, and it did not provide for the correction of the abuses to the Perkins-Haskell-Klaus Law.

Dr. Pearson, Chairman of the Legislative Committee of the Iowa State Medical Society was absent at the time. Thos. A. Burcham, a member of the Legislative Committee, conferred with Dr. O. J. Fay, President of the Board of Trustees and it was decided to call a meeting of the Board and the Legislative Committee. This was done and a joint meeting of the Board and the Legislative Committee was held in the business office of the Iowa State Medical Society on March 8, 1927, with the following members present: Dr. O. J. Fay, Des Moines, President, Board of Trustees; Dr. J. F. Herrick, Ottumwa; Dr. T. E. Powers, Clarinda, Legislative Committee; Dr. T. A. Burcham, Des Moines, Legislative Committee; Dr. J. F. Edwards, Ames, Legislative Committee; Dr. T. B. Throckmorton, Des Moines, Legislative Committee; Dr. Channing Smith, Granger, Councilor; Dr. W. E. Wolcott, Des Moines, Polk County Medical Committee; Dr. Nelson M. Whitehill, Boone.

The original Wamstad Bill was read and discussed as well as the proposed amendments, which the Polk County Medical Society was trying to have substituted by Mr. Wamstad and the sponsors of

the original bill. These amendments were later offered by Mr. Wamstad. Inclosed are the minutes and resolutions of the joint meeting.

"Des Moines, Iowa, March 8, 1927.

"The Board of Trustees listened to a discussion of Bill 283, and amendments by Dr. Thos. A. Burcham of the Public Policy and Legislation Committee of the Iowa State Medical Society, and Dr. W. E. Wolcott of the Polk County Legislative Committee and also authorized the Secretary to send out the following letter:"

A brief summary of the above mentioned letter, which outlined the proposed changes to the Perkins-Haskell-Klaus Law follows:

1. Changes the authority of the Hospital for treatment of patients to a two year period, instead of an indefinite time as in the original bill.
2. Provides for a definite accounting of the patients treated at the State University Hospital.
3. Each County shall be liable to the State for the care and maintenance in the Hospital of all indigent persons from that County.
4. The transportation of attendants and patients shall be paid from the General Fund of the State.
5. Any expense incurred by an indigent patient becomes a lien against any property acquired within a period of ten years. This is best explained in the last section of the enclosed bill—Section 4028-D.

House File No. 283 by Wamstad—Committee Substitute—passed the House of Representatives with the following vote: Ayes, 72; nays, 18. The bill was then referred to the Senate Sifting Committee. This Committee would not vote the bill out for the action of the Senate. The sponsors of the bill asked the Senate to vote to take the bill from the sifting committee. With all the members of the Senate present except Senator Haskell—49—the Senate voted on the question: "Shall House File No. 283 be withdrawn from the Sifting Committee?" The vote was—Ayes, 25; nays, 24. Not having received a majority of the entire Senate—fifty (50) being the total membership—the motion was lost. Twenty-six (26) votes were necessary.

Past experience led me to recommend to the meeting of the Trustees of the Iowa State Medical Society that a paid observer be employed to watch the proceedings at the State House. It is possible for a clever member of the Legislature, at an opportune moment, to have a bill slipped through and become a law almost before a full realization of its import is known. I learned, however, that means were not available for this purpose. It would seem that we have been negligent in the matter of efficiently watching legislation. Most organizations have representatives present constantly during the legislative sessions.

Dr. Treynor suggested that some effort be made to amend the law as he understood it existed in regard to the liability of a consultant. I wrote to Mr. Dutcher, the Legal Representative of the Iowa State Medical Society, relative to the matter and



asked him to call on me on his next visit to the city. This he did and after stating the case, he told me that we were in error. A consultant is responsible only for the advice he gives and is expected to exercise only such care in the examination and recommendations as is generally regarded as competent. He is not liable, as I understand it, for the carrying out of his recommendations.

I was absent from the city for three weeks during the latter part of February and first part of March. On my return to the city I learned of the proposed legislation and the manner in which this Committee had been working. They had displayed so much interest and apparently were so efficient that I was convinced that they needed no assistance from me. From time to time I was informed of their activities and I think great credit is due them for their successful handling of our legislative interests.

William W. Pearson, Chairman,  
James F. Edwards,  
Thomas A. Burcham,  
Thomas E. Powers, Ex-Officio,  
Tom B. Throckmorton, Ex-Officio,  
Committee.

Dr. V. L. Treyner, Council Bluffs, moved the acceptance of the report, which being seconded by Dr. John F. Herrick, Ottumwa, was discussed by Dr. John F. Herrick and Dr. A. P. Johnson, after which the motion was put and carried.

There being no further reports from Officers, the report of the Committee on Constitution and By-Laws was presented by Secretary Throckmorton. The resolution, as presented at the Wednesday p. m. meeting of the House, proposing to amend Section 5, Chapter VI of the By-Laws, by adding the following after the word "officers", in line 24, page 341, of the amendments published in the July, 1926, issue of the Journal; "delegates to the American Medical Association, standing or special committees".

Having laid on the table the prescribed time, the motion to adopt such resolution was made by the Secretary and on being duly seconded, was carried.

There being no other reports of Standing or Special Committees, the business referable to communications was then taken up.

### COMMUNICATIONS

Secretary Throckmorton again called the attention of the House to the communication received February 18, 1927, from the Secretary of the Cerro Gordo County Medical Society, referable to the Society having voted to take in the physicians of Worth County. The Secretary called attention to the fact that Worth County has a membership of five members and that Cerro Gordo County has a membership of forty-two. The two counties are contiguous and inasmuch as it seemed the wish so expressed by the Cerro Gordo Society to unite with Worth County, that the House grant the request.

The motion being seconded, Dr. S. S. Westly, President of the Worth County Medical Society, stated that he knew of no official action taken by his Society to consummate a hyphenated membership with Cerro Gordo County. With this explanation, Secretary Throckmorton withdrew his motion, leaving the status of Worth and Cerro Gordo County Societies in statu quo.

The Secretary then read a communication from Dr. George H. Simmons, Chicago, Chairman of the Committee on Relief of Incapacitated Physicians, of the American Medical Association, referable to information as to the number of indigent physicians in Iowa.

The Secretary stated that only one communication had been received at his office referable to a physician needing financial help, and moved that all communications referable to the subject matter at hand coming to the Secretary's office be referred to the Board of Trustees for such action as it might see fit to take. Motion seconded by Dr. V. L. Treyner, and carried.

Secretary Throckmorton then read a communication from Dr. Thomas G. Orr, President of the Medical Society of Missouri Valley, requesting that attention be brought to the House and membership of the Society to the coming meeting of the Society to be held in Des Moines, September 14, 15 and 16.

A communication was then read by the Secretary from Dr. W. E. Long, Chairman of the Publicity Committee of Cerro Gordo County Medical Society, concerning the publicity campaign which the County Society was putting over in its county.

Dr. O. J. Fay, moved that this communication be referred to the Council for such action as that august body might see fit to take. Seconded and carried.

The Secretary then read a communication from Dr. William C. Woodward, Chicago, Executive Secretary Bureau of Legal Medicine and Legislation, concerning the needed safeguards in the promulgation of regulations under the National Prohibition Act and the Harrison Narcotic Act, in which the following principles were suggested for enactment into law:

1. Adequate public notice shall be given, and opportunity afforded interested parties to be heard, by brief or orally, before any regulation is promulgated.
2. Any regulation promulgated shall be officially published so as to inform the interested public of that fact.
3. A reasonable time shall be allowed after the promulgation of any regulation before it becomes effective.
4. Authentic copies of all regulations shall be available at all times to persons requesting them.
5. All regulations promulgated shall be officially reported to Congress annually and be published in authentic form in the Statutes at Large or in some other proper, generally available form.

6. When Congress first convenes after the enactment of the proposed law all regulations in force shall be officially reported to Congress and shall be published in authentic form in the Statutes at Large in some proper and convenient form, so as to bring publication up-to-date.

7. To meet emergencies, the President may waive the time limits and proceedings normally required for the promulgation of regulations, so as to permit the promulgation immediately of regulations necessary to meet the situation, such regulations to remain in force until regulations can be promulgated in due course.

The Secretary moved that it be the sense of the House to concur heartily with the sentiment expressed by this National Committee of Legal Medicine and Legislation in this matter.

Seconded and discussed by Dr. John F. Herrick, Ottumwa, after which the motion was put and carried.

A telegram from the Webster County Medical Society, and a letter from the Linn County Medical Society and from the local Chamber of Commerce, inviting the Society to hold its next meeting at these respective places, were placed in the hands of the Nominating Committee for such recommendations as it might see fit to take.

Secretary Throckmorton then stated that it was with regret he was obliged to announce the receipt of a telegram from Dr. John H. Musser, New Orleans, stating his inability to meet with the Society owing to the sudden and critical illness of his wife in Philadelphia, and moved that a telegram expressing the sympathy of the Society, together with a suitable floral tribute, be sent to Dr. Musser and his wife.

Seconded and carried.

There being no further business to come before the House, the Society adjourned at 9:20 a. m.

### Third Meeting, Friday, A. M., May 13

The House of Delegates met in the Elks Club and was called to order by President Powers at 8:00 a. m. sharp.

Secretary Throckmorton moved that in the absence of Dr. Harold Spilman, Ottumwa, alternate seated at the Thursday meeting of the House, that the delegate, Dr. Charles B. Taylor, Ottumwa, delegate seated at the Wednesday meeting, be allowed a seat at this meeting. Seconded and carried.

The minutes of the first meeting of the House were then read by the Secretary and there being no corrections or objections, the Chair stated that the minutes would stand approved as read.

The minutes of the second meeting were then read by the Secretary and there being no corrections or objections, the Chair stated that the minutes would stand approved as read.

The report of the Committee on Nominations being the first order of business, Dr. John H. Peck, Des Moines, Chairman, presented the report as follows:

### REPORT OF THE COMMITTEE ON NOMINATIONS

For the office of President-Elect—Dr. T. U. McManus, Waterloo; Dr. Frederick G. Murray, Cedar Rapids; Dr. W. W. Bowen, Ft. Dodge.

For First Vice-President—Dr. O. F. Parrish, Grinnell.

For Second Vice-President—Dr. Royal F. French, Marshalltown.

For Secretary—Dr. Tom B. Throckmorton, Des Moines.

For Treasurer—Dr. Robert L. Parker, Des Moines.

For member Board of Trustees to succeed himself—Dr. Vernon L. Treynor, Council Bluffs.

For Delegates to A. M. A. for two-year term—Dr. William Jepson, Sioux City; Dr. Thomas F. Thornton, Waterloo.

For Alternates to A. M. A. for two-year term—Dr. Fred Moore, Des Moines; Dr. Clyde A. Boice, Washington.

### Standing Committees

For members of the Medico-Legal Committee to succeed Dr. Eschbach—Dr. Frank A. Ely, Des Moines, three year term; Dr. George C. Albright, Iowa City, for 2 year term.

For Public Policy and Legislation Committee—Dr. Thomas A. Burcham, Des Moines; Dr. W. E. Wolcott, Des Moines; Dr. P. A. Bendixen, Davenport.

For members of the Constitution and By-Laws Committee—Dr. Vernon L. Treynor, Council Bluffs; Dr. Charles B. Taylor, Ottumwa; Dr. Tom B. Throckmorton, Des Moines.

For members of the Finance Committee—Dr. Ernest C. McClure, Bussey; Dr. Daniel F. Houston, Burlington; Dr. Charles Ellyson, Waterloo.

The Committee endorses the continuance of the Special Committees—Medical Library, Military Affairs, and Hospital and suggests that Dr. Frank E. Sampson, Creston, succeed himself as a member of the latter committee.

The Committee further recommends that Cedar Rapids be the meeting place of the next Annual Session to be held May 9, 10 and 11, 1928.

Respectfully submitted,

Dr. John H. Peck,  
Chairman.

Dr. Thomas F. Suchomel, Cedar Rapids, stated that the report was correct excepting in the Medico-Legal Committee the three-year term was originally allotted to Dr. George C. Albright, Iowa City, and to fill the unexpired term caused by the death of Dr. H. C. Eschbach, Albia, Dr. Frank E. Ely, Des Moines.

Chairman Peck accepted the changes, after which Secretary Throckmorton moved that the report as changed be accepted. The motion being duly seconded, was carried.



### Election of Officers

The House then proceeded to an election.

The President appointed Dr. Channing G. Smith, Granger and Dr. Paul E. Gardner, New Hampton, as tellers.

The ballot was then taken for the office of President-Elect.

Secretary Throckmorton then announced that it would be necessary to know the number of officers and delegates present who would be entitled to vote before a ballot could be taken. Roll call showed the presence of 11 officers and 45 delegates.

A ballot of 56 votes was cast, of which Dr. T. U. McManus, Waterloo, receiving 37, the Chair declared him elected to the office of President-Elect.

Dr. Thomas A. Burcham, Des Moines, moved that the election of Dr. T. U. McManus for President-Elect, be made unanimous. Seconded and unanimously carried.

Dr. C. A. Boice, Washington, moved that, as there was but one candidate for the other offices and committees, the rules be suspended and the Secretary be instructed to cast the ballot for the remaining officers and committee members as reported by the Nominating Committee; seconded and carried.

The Secretary then cast the ballot and the Chair declared the remaining officers and committee members duly elected.

Dr. Evan S. Evans, Grinnell, moved that the recommendation of the Nominating Committee regarding Cedar Rapids as the next meeting place, to be held May 9, 10 and 11, be accepted.

The motion being duly seconded, the Chair ruled that inasmuch as Fort Dodge had also extended an invitation, the motion was out of order. Dr. Homer W. Scott, Fort Dodge, asked the privilege of withdrawing the name of Fort Dodge as a prospective meeting place of the Society, and there being no objections the same was allowed.

The motion originally made by Dr. Evan S. Evans, Grinnell, was then put and on being duly seconded was unanimously passed, and Cedar Rapids was selected as the meeting place of the Society next year.

### NEW BUSINESS

The Secretary then called attention to a recommendation made in his original report concerning the Conference of State Officers and County Secretaries, held in Des Moines, last December, and moved that the Board of Trustees be authorized to call a similar Conference sometime during the coming year at Des Moines, the time to be selected by the Board and the Secretary. Seconded by Dr. V. L. Treynor, Council Bluffs, and carried.

Secretary Throckmorton then moved that the Council draw up suitable resolutions concerning the demise of Past President Henry C. Eschbach, Albia, the same to be had for publication with the transactions of the House in the July issue of the Journal, and a copy to be sent members of the family.

Upon being duly seconded by Dr. John F. Herrick, Ottumwa, the motion was carried.

Dr. Oliver J. Fay, Des Moines, then made a few remarks concerning the work of the Legislation Committee and outlined briefly the necessity of more cooperation between members of County Societies, the Legislation Committee, and the Board of Trustees.

Dr. J. Lee Taylor, Monroe, reported briefly concerning the action of Jasper County and its recommendation for an increase of dues if necessary, to aid in furthering proper medical legislation.

Secretary Throckmorton then read the following resolution: Be it Resolved: "The Iowa State Medical Society has learned with satisfaction that the program to eradicate diphtheria from the State of Iowa has already been adopted and completed in 230 communities of the state, and would therefore commend it to the sympathetic support and co-operation of all County Medical Societies and all individual physicians."

Dr. Channing G. Smith, Granger, moved the adoption of the resolution. Seconded and carried.

Secretary Throckmorton then announced that the delegates of the second district had selected Dr. A. P. Donohoe, Davenport, as Councilor for that district, and those of the ninth district had reappointed Dr. H. B. Jennings, Council Bluffs.

There being no further business to come before the House of Delegates, upon motion by Dr. W. L. Hearst, Cedar Falls, the same was adjourned *sine die*, at 8:55 a. m.

Respectfully submitted,

Tom B. Throckmorton,  
Secretary.

The Council of the Iowa State Medical Society met in the Elks Club at Council Bluffs, May 13, 1927 and elected Channing G. Smith, Chairman and S. T. Gray, Secretary for the ensuing year.

At a meeting of the Council of the Iowa State Medical Society in Council Bluffs, May 13, 1927, the Chairman and Secretary were by motion instructed to prepare a resolution for the late Dr. H. C. Eschbach of Albia, Iowa.

Whereas: It has pleased Almighty God to take to Himself our late member, Dr. H. C. Eschbach.

Now therefore, be it resolved: that it is with much regret and great sorrow that the Iowa State Medical Society records the death of our much esteemed and greatly beloved brother practitioner, and we wish here to pay tribute to his memory as a conscientious, loyal physician.

He was well known and had an active part in the Iowa State Medical Society for forty-three years. He made it a practice to attend if possible every meeting of the State Society. He served as Councilor, President, Trustee, Chairman of different sections, and at the time of his death was a member of the Medical-Legal Committee. He served five years as member of the Iowa State Board of Health and was a member of many of the leading medical

societies. He gave much of his time and ability for the welfare of the medical profession.

Dr. Eschbach was regarded as a physician of great ability and skill by the physicians of his own community as well as by the physicians of the state. He represented the highest type, and gave his whole life in serving suffering humanity. He rendered efficient service to those who were actually sick and never exploited any patient for his own financial gain. He had the esteem and confidence of all who knew him, both as a physician and a citizen.

Dr. Henry Clay Eschbach was born October 23, 1856, in Pennsylvania, and died March 25, 1927, at his home in Albia, Iowa. He graduated in medicine at the University of Pennsylvania in 1883, and practiced his profession in Iowa at Des Moines, Monroe, and for thirty-nine years in Albia. He continued in active practice until October, 1926, when he was stricken down with the disease which in a few months caused his death.

In behalf of the Iowa State Medical Society we express our highest appreciation of the life and work of Dr. Eschbach and extend our deepest sympathy to the bereaved wife, Mrs. Augusta Coe Eschbach of Albia, Iowa, and to the daughters; Mrs. John Stephens of Minneapolis, Mrs. George Newton of Muscatine, and Miss Barbara of St. Charles, Missouri, in the loss of a beloved husband and a devoted father.

Be it further resolved: that these resolutions be spread upon the minutes of the Council of the Iowa State Medical Society, published in the Iowa State Medical Journal, and a copy of same be sent to the bereaved family.

Respectfully submitted,

Channing G. Smith, Chairman.

S. T. Gray, Secretary.

IOWA STATE MEDICAL SOCIETY OFFICERS  
AND COMMITTEES 1927-1928

President	Michael J. Kenefick, Algona
President-Elect	Thomas U. McManus, Waterloo
First Vice-President	Ora F. Parish, Grinnell
Second Vice-President	Royal F. French, Marshalltown
Secretary	Tom B. Throckmorton, Des Moines
Treasurer	Robert L. Parker, Des Moines

COUNCILORS	Term expires
First District—George B. Crow, Burlington	1930
Second District—Anthony P. Donohoe, Davenport	1932
Third District—Fred F. Agnew, Independence	1931
Fourth District—Paul E. Gardner, New Hampton	1929
Fifth District—George E. Crawford, Cedar Rapids	1928
Sixth District—Samuel T. Gray, Albia, Secretary	1928
Seventh District—Channing G. Smith, Granger, Chairman	1929
Eighth District—Fred A. Bowman, Leon	1929
Ninth District—Henry B. Jennings, Council Bluffs	1932
Tenth District—Watson W. Beam, Rolfe	1931
Eleventh District—Giles C. Moorhead, Ida Grove	1930

TRUSTEES	
Oliver J. Fay, Des Moines, Chairman	1928
Vernon L. Treyner, Council Bluffs	1930
John F. Herrick, Ottumwa	1929

DELEGATES TO A. M. A.	
Donald Macrae, Jr., Council Bluffs	1928
Bert L. Eiker, Leon	1928
William Jepson, Sioux City	1929
Thomas F. Thornton, Waterloo	1929

ALTERNATE DELEGATES TO A. M. A.	
Thomas A. Burcham, Des Moines	1928
John F. Herrick, Ottumwa	1928
Fred Moore, Des Moines	1929
Clyde A. Boice, Washington	1929

STANDING COMMITTEES	
MEDICO-LEGAL	
Frank A. Ely, Des Moines, Chairman	1929
Henry B. Jennings, Council Bluffs	1928
George C. Albright, Iowa City	1930

SCIENTIFIC WORK	
Michael J. Kenefick	Algona
Tom B. Throckmorton	Des Moines
Robert L. Parker	Des Moines

PUBLIC POLICY AND LEGISLATION	
Thomas A. Burcham, Chairman	Des Moines
W. Eugene Wolcott	Des Moines
Peter A. Bendixen	Davenport
Michael J. Kenefick, Ex-Officio	Algona
Tom B. Throckmorton, Ex-Officio	Des Moines

CONSTITUTION AND BY-LAWS	
Vernon L. Treyner, Chairman	Council Bluffs
Charles B. Taylor	Ottumwa
Tom B. Throckmorton	Des Moines

PUBLICATION COMMITTEE	
David S. Fairchild, Sr., Editor	Clinton
Tom B. Throckmorton, Secretary	Des Moines
Oliver J. Fay, Trustee	Des Moines
Vernon L. Treyner, Trustee	Council Bluffs
John F. Herrick, Trustee	Ottumwa

FINANCE	
Ernest C. McClure, Chairman	Bussey
Daniel F. Houston	Burlington
Charles Ellyson	Waterloo

ARRANGEMENTS	
Michael J. Kenefick	Algona
Tom B. Throckmorton	Des Moines
Robert L. Parker	Des Moines
Two members from the Linn County Medical Society	

SPECIAL COMMITTEES	
MEDICAL LIBRARY	
David S. Fairchild, Sr., Chairman	Clinton
Conrad R. Harken	Osceola
Felix A. Hennessy	Calmar

MILITARY AFFAIRS	
Donald Macrae, Jr., Chairman	Council Bluffs
Harold A. Spilman	Ottumwa
Earl B. Bush	Ames

HOSPITAL COMMITTEE	
Walter L. Bierring, Des Moines, Chairman	1929
Fred M. Smith, Iowa City	1928
Frank E. Sampson, Creston	1930



## SOCIETY PROCEEDINGS

### Butler County Medical Society

The Butler County Medical Society met at Dumont, Thursday, May 5. Those present were: Drs. Smith and Day of Clarksville; Kepler, Allison; McLeod and Call, Green; Ensley, Shell Rock; Evans, New Hartford, and Roder, Dumont.

Dr. Smith of Clarksville presented for discussion, Renal Calculi, and Dr. Hall, Angina Pectoris.

The following officers were elected: President, Dr. C. F. Roder, Dumont; vice-president, Dr. Evans, New Hartford; secretary-treasurer, Dr. Day, Clarksville.

### Cerro Gordo County Medical Society

The Cerro Gordo County Medical Society held its regular monthly meeting at Cerro Gordo Hotel, Mason City, May 17, 1927. Dinner was served at 6:30 p. m. The meeting was called to order at 7:30 p. m., by President C. E. Dakin. Dr. W. E. Long, Mason City, delegate to the State Society, read his report on that meeting, held at Council Bluffs, May 11, 12 and 13, 1927. After properly disposing of the business matters of the Society, Dr. C. E. Dakin introduced Dr. A. R. Barnes of the Mayo Clinic, who addressed the society on the subject of Heart Disease, a very interesting subject, well presented and greatly appreciated by all present.

The next meeting will be a joint meeting with the Cerro Gordo County Bar Association, June 4, 1927, at the Mason City Country Club.

### Fremont County Medical Society

The Fremont County Medical Society met at Sidney, March 29th. After a dinner at Abbott's Cafe the Society took up the program for the evening; Back Aches, by Dr. Danley of Hamburg. The following members were present: Drs. Danley and Wanamaker, Hamburg; Dr. Miller, Tabor; Drs. Keer and Baldwin, Randolph; Dr. Murchison, Sidney.

The following officers were elected: Dr. Danley, president; Dr. Baldwin, secretary-treasurer; Dr. Wanamaker, delegate to State Society; Dr. Keer and Dr. Murchison, alternates; Dr. Baldwin and Dr. Cole, censors.

### Johnson County Medical Society

Papers were read by Drs. Brown, Dennison and Gerken. This appears to have been a Sheppard-Towner meeting under the direction of Dr. Gerken. The next meeting will be held on Thursday, July 14, 1927.

It is announced that physicians' offices in Jackson county will be closed Thursday afternoons and evenings during May, June, July and August.

### Keokuk County Medical Society

The following were elected officers of Keokuk county at its meeting April 29th: Dr. W. W. Stir-

leu, president; Dr. T. G. Dulin, Sigourney, vice-president; Dr. E. B. Hoeven, secretary and treasurer; Dr. A. P. Johnson, delegate to State Medical Society.

### Marion County Medical Society

The Marion County Medical Society met Thursday, June 30, 1927, at 2 p. m., in American Legion Hall, at Pella, Iowa.

The program was as follows: Business meeting: Delegate's report—E. C. McClure, M.D., Bussey. Scientific program: Chorea, with presentation of cases, E. C. McClure, M.D., Bussey. Legislation and the Physician, S. T. Gray, M.D., Councilor Sixth District, Albia. An Experimental Study of the Factors Which Extend the Chronicity of Lung Abscesses, C. M. Van Allen, M.D., Associate in Surgery, State University College of Medicine, Iowa City.

Entertainment was provided for the ladies. Dinner at 6 p. m.

Corwin S. Cornell, M.D.,  
Secretary.

### Polk County Medical Society

The Polk County Medical Society met for its regular monthly meeting at the Fort Des Moines Hotel, Des Moines, April 26, 1927. The meeting was opened at 7:50 p. m. by the vice-president, Dr. A. D. McKinley.

The minutes of the previous meeting were read and approved. Clinical cases were called for but none were presented.

#### Program

The Philosophy of Therapeutics—D. Glomset, M.D.

Intestinal Obstruction—Experimental and Clinical—Thomas G. Orr, M.D., professor of surgery, University of Kansas Medical School. Dr. Glomset's paper was discussed by Dr. F. A. Ely, Dr. J. S. Weingart and Dr. D. S. Fairchild.

Dr. Orr's paper was discussed by Dr. W. E. Sanders and Dr. D. J. Glomset.

After closing the discussion Dr. Orr made a short talk concerning the Medical Society of the Missouri Valley and their meeting to be held in Des Moines this fall. Dr. McKinley then appointed the following men on the arrangements committee: Entertainment—Dr. Chas. Ryan, Chairman. Dr. Thos. A. Burcham, Dr. J. Dyson. Transportation—Dr. J. T. Martin, Chairman, Dr. F. Fordyce. Exhibits—Dr. L. K. Meredith, Chairman, Dr. A. S. Price, Dr. H. E. Ransom. Clinics—Dr. J. S. Weingart, Chairman, Dr. R. R. Simmons, Dr. Howard Gray, Dr. A. P. Stoner.

The application of Dr. H. C. Bone for membership was then presented to the society, having been favorably passed by the Board of Censors. It was moved, by Dr. Blum, that the by-laws be suspended and Dr. Bone be unanimously elected to membership. Duly seconded and unanimously carried.

The application of Dr. H. H. London was then presented to the society. Dr. M. L. Turner moved that the by-laws be suspended and Dr. London be unanimously elected to membership to this society. Duly seconded and unanimously carried.

The secretary then read a resolution on the death of Dr. Guy E. Clift. It was moved that these resolutions be adopted and a copy sent to Mrs. Clift. Duly seconded and unanimously carried.

Dr. G. N. Ryan read a resolution on the death of Dr. C. C. Shope. It was moved that these resolutions be adopted and a copy sent to Mrs. Shope. Duly seconded and unanimously carried.

There were sixty-nine members present and nine visitors. Total seventy-eight.

L. K. Meredith, Sec'y.

### Resolutions

Whereas, One of our oldest members of the Polk County Medical Society, Dr. C. C. Shope, has been called to his reward by death.

Therefore, be it resolved that in the loss of Doctor Shope, this society has lost a most loyal and earnest member, and this community a most valuable citizen.

And be it further resolved, to those of us who knew him best, his life well demonstrated the prerequisites of a real family physician, as well as the sterling qualities and splendid character of a real man in his daily contacts. Doctor Shope will long be remembered as a kindly, generous, faithful physician, who always held high ideals in the ethics of the profession.

And be it Further Resolved that these resolutions be entered upon the records of this society, and that our secretary be instructed to forward a copy to the family and also to the Iowa State Medical Journal for publication.

Respectfully submitted,

E. R. Lincoln,  
G. N. Ryan,  
Committee.

As members of the Polk County Medical Society we are again called upon to file among our records the passing on of one of our members.

Dr. Guy E. Clift passed away March 19, 1927, after a prolonged illness from an incurable disease. Notwithstanding that we as physicians are always willing and anxious to combat disease in any of its many forms, yet, we fully realize that there are times when in the end our every effort only proves unavailing.

Dr. Clift was a man that was always considerate for the welfare and burdens of others, sometimes possibly to his own disadvantage. We fear that on account of his consideration for others he at times willingly endured considerable discomfort himself rather than add slightly to the work of a colleague who would so willingly have called upon him.

We as members of the Polk County Medical Society naturally mourn the loss of a man of his

caliber and regret that we could not have done more for him.

Be it resolved that a copy of this resolution be entered upon the records of this society and that a copy be mailed to his wife and family.

H. E. Ransom,  
H. L. Sayler,  
Committee.

### Polk County Medical Society

The Polk County Medical Society met for its regular meeting at the Fort Des Moines Hotel, Des Moines, May 31, 1927. The meeting was called to order by the vice-president, Dr. A. D. McKinley, at 7:50 p. m.

The minutes of the previous meeting were read and approved.

Clinical cases were called for but none were presented.

#### Program

Amebic Infection—E. E. Morton, M.D.  
The Kahn Test—Anna T. Glomset, M.D.  
Hemachromatosis—Treated with Insulin—E. B. Winnett, M.D.

Meeting adjourned at 10:15 p. m.

L. K. Meredith, Sec'y.

### Story County Medical Society

The Story County Medical Society met at Ames, Friday evening, May 6th. An election of officers was held. Dr. J. F. Edwards of Iowa State College was elected president; Dr. F. H. Conner of Nevada, vice-president and Dr. B. G. Dyer of Ames, secretary-treasurer. Dr. Dyer was selected to represent the society as delegate to the State Society.

### Tama County Medical Society

The physicians of Tama county representing the Tama County Medical Society held a meeting in Traer, May 31st.

Twenty-four members enjoyed a splendid luncheon served at 1 p. m., by the ladies of the Bovey Sunday School class.

A report of the state meeting was given by Dr. M. L. Allen of Tama, with especial reference to the latest method of diagnosis and treatment of heart disease. This live and timely topic created so much interest that it was concluded to continue the heart study by having two members prepare papers for the next meeting to be held in Conants Park, near Gladbrook, May 27th.

Albert A. Crabbe, Sec'y.

### Northwest Iowa Medical Society

The meeting was called to order in the banquet room of the Arlington Hotel by president Dr. E. J. Bild, of Doon, in the chair. Papers presented were: Management of Head Injuries, Dr. Wm. Jepson, Sioux City; Chronic Nephritis, Dr. W. D. Runyon, Sioux City; Acute Infectious Diseases—Prophylaxis



and Treatment, Dr. C. A. Samuelson, Sheldon. The fall session will be held in October.

#### **Iowa Clinical Medical Society**

The Iowa Clinical Medical Society met at Council Bluffs, March 26, 1927. Those present were: Dr. Evans, Grinnell; Dr. Runyon, Sioux City; Dr. Larimi, Sioux City; Dr. Shellito, Independence; Drs. Hamilton, Jefferson, Ryan, Des Moines; Dr. Parsons, Creston; Dr. Woodward, Mason City; Dr. Van Epps, Iowa City; Dr. Smith, Iowa City; Dr. Schultz, Ft. Dodge; Drs. A. D. Dunn, Lowell Dunn, Omaha; Dr. Bannister, Ottumwa; Drs. Ash, Johnson, V. T. Treynor, Jack Treynor, Council Bluffs.

The following gentlemen were elected officers: Dr. E. T. Edgerly, Ottumwa, president; Dr. Fred Smith, Iowa City, vice-president; Dr. Russell Doolittle, Des Moines, secretary.

#### **IOWA HEART ASSOCIATION**

Officers of the Iowa Heart Association were elected as follows: President, Dr. M. M. Myers, Des Moines; vice-president, Dr. Fred Smith, Iowa City; secretary, T. J. Edmonds, Des Moines; directors: Dr. W. L. Bierring, Dr. W. D. Runyon, Dr. Frank Fuller, Dr. V. L. Treynor, and Dr. L. L. Woodward.

#### **UNITED STATES CIVIL SERVICE EXAMINATION**

The United States Civil Service Commission announces the following open competitive examination:

Assistant Medical Officer  
Associate Medical Officer  
Medical Officer  
Senior Medical Officer

Applications for these positions will be rated as received at Washington, D. C., until December 30.

The examinations are to fill vacancies occurring in the Indian Service, the Public Health Service, the Coast and Geodetic Survey, the Panama Canal, the Veterans' Bureau Field Service, and other branches of the federal classified service throughout the United States.

Specialists are needed in practically all branches of medicine and surgery. There is especial need for medical officers qualified in tuberculosis or neuro-psychiatry.

Competitors will not be required to report for examination at any place, but will be rated on their education, training, and experience.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of United States civil service examiners at the post office or custom house in any city.

#### **INOCULATION FOR SMALL-POX IN 1792**

The Boston Medical Journal has recently published the diary of Dr. Thomas Eaton of Haverhill, Massachusetts, who qualified himself in about 1792 for the practice of medicine. One of the qualifications in those days was an immunity against small-pox, so serious and dangerous. This was before the Jenner vaccination which has so completely removed the fears of this disease.

Dr. Eaton writes in his diary the manner of securing his immunity against small-pox: "Wednesday 27th rode to the pest-house, took physic, jalap and antimony, drank grease. It worked in the afternoon. Rode to Mr. Hoitt's and left our horses, to keep fit at 2 shillings 6 pence per week per piece, ordered him to give them some potatoes. Then walked to the pest-house and ate finding and milk without salt. Lodged on hay, seeds very hard. Sold our apples, biscuit, lemons, etc., the most of them, to the doctor, as he would not allow us to eat anything salty, greasy, or sour, but ordered our diet to be skim milk, hasty pudding and milk porridge. Physic every other morning for three or four days with jalap, etc., and antimony or the essence of antimony, so as to work a few times up and down, especially if the stomach be foul; then no more physic at all after the eighth day from the inoculation. But few persons in the pest-house."

It appeared that a class entered the pest-house with Dr. Eaton, and others from time to time. One of the number died of small-pox.

#### **APPROVAL OF VETERANS BUREAU HOSPITALS**

Brig. Gen. Frank T. Hines, director of the Veterans Bureau has just been advised that every one of the fifty-two hospitals maintained and operated by the Bureau has been fully approved by the American College of Surgeons which is the criterion in matters of this kind in the United States.

The Veterans Bureau hospitalization program is the largest in the world, and attainment of this high standard throughout the service is one of the outstanding features of the present administration of the Veterans Bureau.

In announcing to the director the full approval of these institutions Dr. M. T. MacEachern, director of hospital activities of the American College of Surgeons took occasion to acknowledge "the whole hearted support of the director and his staff and the personnel in the various hospitals considered", as contributory factors in attaining the 100 per cent mark.

Dr. MacEachern stated that, "in no other part of the entire hospital field has the American College of Surgeons received better cooperation than in its dealings with the Veterans Bureau in this respect, and we are very proud indeed to have your hospitals on our approved list".

## THE PRACTICAL MEDICINE SERIES

Under the General Editorial Charge of Charles L. Mix, A.M., M.D., Series of 1926. General Medicine. The Year Book Publishers, \$3.00.

The First Division is on Infectious Diseases and Endocrinology, by Dr. George H. Weaver; The Second Division, Diseases of the Chest, by Lawran-son Brown, M.D.; The Third Division, Diseases of the Blood and Blood-Making Organs, Diseases of the Blood-Vessels, Heart and Kidney, by Dr. Robert B. Preble, A.M., M.D., and the Fourth Division by Ralph C. Brown, B.S., M.D., on Diseases of the Digestive System and Metabolism. These several divisions indicate the general contents of this book which the general practitioner will find of exceptional value and convenience in his everyday practice.

## TRANSFUSION OF BLOOD

By Henry M. Feinblatt, M.D., Assistant Clinical Professor of Medicine, The Long Island College Hospital, Brooklyn, New York. Illustrated by 24 Engravings. The Macmillan Company, New York, 1926.

This small volume presents in clear but brief detail the various phases of the important subject of blood transfusion. The writer introduces the subject by an interesting historical sketch of the steps in the development of the modern practice of the procedure. Next he discusses the methods of determining blood compatability and the suitable selection of a donor for transfusion. He follows the suggestion of Jansky's in numbering the groups which may prove tedious to many hematologists more used to the Moss classification, however, care in reading will obviate any confusion. His chapters on indications for and dangers of transfusion are perhaps the most valuable single contributions in the volume. He devotes one chapter to a discussion of the commoner methods employed in transfusion and a second chapter dealing exclusively with a method which he himself has devised. Certain superiority is claimed for the author's own method and certainly it would appear that this method may justify the claims.

The volume will be found useful to those performing or advising this therapeutic procedure as well as a ready reference guide to the student. R. R. S.

## REPORT OF THE DEPARTMENT OF HEALTH OF THE CITY OF CHICAGO

For the years 1923, 1924 and 1925. By Herman N. Bundesen, M.D., Commissioner of Health, Chicago, 1926.

A complete report of the various activities of the Department of Health embodying both a statistical review of the work and much of the original methods and experimentation by which the results were obtained. R. R. S.

*For Prevention and Treatment of Hay Fever—*

PARKE, DAVIS &amp; COMPANY'S

## POLLEN EXTRACTS

*Convenient—Accurately Standardized—Potent*

THE timely administration of Pollen Extracts, P. D. & Co., will save many hours of needless suffering and loss of time, or the necessity of seeking a pollen-free climate for the hay fever period.

The first prerequisite for the successful use of Pollen Extracts, P. D. & Co., is to determine the nature of the pollen or pollen group to which the hay fever patient is susceptible. Pollen Extracts, Diagnostic, P. D. & Co., are especially adapted to this purpose, being put up in paste form in individual collapsible tubes, each containing a single pollen or a group of related pollens. The diagnosis is rapidly made—the technic is very simple.

If the patient reacts promptly to the pollen of the common ragweed, for example, the most frequent offender at this season of the year, or to the pollens of related genera, such as other ragweeds, marsh elders, or cocklebur, it is good practice to cover the entire ground by using the indicated group of pollens for immunization. This insures best results and affords satisfaction to both physician and patient.

*Literature will be gladly sent to any physician on request*

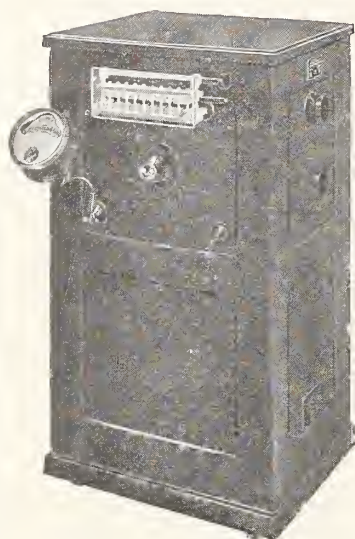
PARKE, DAVIS &amp; COMPANY

[United States License No. 1 for the Manufacture of Biological Products]

DETROIT, MICHIGAN



## The "STANDARD JR."



DEEP THERAPY is the requirement in true diathermy. To obtain thermic effects **within** the tissues (true diathermy) real **high voltage** is required to drive the current through the parts under treatment.

The quantity of current delivered by any apparatus is no index of its therapeutic quality or the efficiency of an apparatus. Voltage is the qualifying factor.

Combined with high voltage an apparatus must possess the property of **resonance** when the patient is a part of the circuit as well as when not a part of the circuit.

Given such an apparatus with a proper frequency characteristic, an ideal spark gap, rugged construction and a perfectly flexible control; every medical and surgical high frequency requirement can be accomplished with efficiency and with consistent results.

More detail on request.

The STANDARD JR. High Frequency Apparatus Has the  
Above Qualifications

### Standard X-Ray Sales Corporation

320 Liberty Bldg.

Des Moines, Iowa

## DO YOU

Believe that our advertising in this journal and similar professional publications results in any real influence towards securing business for us?

Would not, in your opinion, advertising of a more direct nature to the select group that we deal with come more nearly being effective with the Oculists and Eye, Ear, Nose and Throat Specialists in our territory?

If you have noticed this advertisement we shall appreciate your giving us your reaction.

— *Exclusive Opticians for Oculists* —

### UHLEMANN OPTICAL COMPANY

Mallers Bldg.,  
Pittsfield Bldg.,  
CHICAGO, ILL.

ESTABLISHED 1907

Stroh Bldg.,  
Maccabees Bldg.,  
DETROIT, MICH.

## PERSONAL MENTION

---

Dr. Knight M. Fee, wife and two sons, of Toledo, have just returned from an extensive eastern auto trip, having visited New York City and Washington enroute. They report a good time, and good roads.

Dr. F. T. Launder and wife of Garwin have just returned from spending the winter in California. They made the round trip by auto.

Dr. and Mrs. A. A. Crabbe of Traer, have recently returned from an auto trip to California. Leaving their home in Traer February 22nd, with roads impassable except in the direction of Dubuque, they left the state at that point, going over paved roads to Cairo, Illinois, and from there on south through Memphis and Jackson, Mississippi, where they turned west through Dallas and El Paso, Texas. Dr. and Mrs. Crabbe viewed the south as it was before the flood, but were only about "two jumps" ahead of said flood, but found all weather roads all the way by this route.

From time to time we are called upon to record the death or retirement of medical men who have been active in the development of medical practice in Iowa. These men did not have the opportunities of the younger generation of doctors but aided materially in preparing the way for the men who were to come after them. Among the doctors who performed pioneer medical service in Iowa was Dr. Perry Engle of Newton who recently announced his retirement after fifty-six years of practice. It is not remarkable for men in business or other callings to continue on for that period of time, but to the practitioner of medicine of fifty years or more, service in Iowa exposed as he was to the hardships and responsibility of his profession, fifty-six years is a long time.

It is reported that Dr. H. P. Moen of Estherville has located in West Union.

Dr. Roland Stahr of Washington University, St. Louis, has located in Fort Dodge, specializing in diseases of children.

Dr. Walter L. Bierring of Des Moines was elected president of the National Board of Medical Examiners at a recent meeting in Washington, D. C.

Dr. Lafe H. Fritz and Dr. Donald C. Konzett of Dubuque have entered into an association for the practice of general surgery, with offices at 206 Bank and Insurance building, Dubuque.

---

## OBITUARY

---

Dr. Joseph George Henderson died at his home at West Chester, Iowa, May 25, 1927. Dr. Henderson was born in Jacksonville, Indiana county, Pennsylvania, October 6, 1854; came to Aledo, Illinois, with his family in 1855; later the family returned to Pennsylvania. In 1864 the Hendersons moved to Washington, Iowa.

Dr. Henderson attended Elbers Ridge Academy, Pennsylvania, and in 1877 Rush Medical College, Chicago. The next year he attended Starling Medical College, Columbus, Ohio, from which he graduated, February 25, 1879. He began practice at Harper, Iowa, thence to Keota and finally at West Chester, where he practiced, except at short intervals, until his health began to fail when he gave up practice, at the close of nearly forty-eight years of professional service.

On April 16, 1895, Dr. Henderson married Miss Clara Bell De Long at West Chester, who survives him.

---

Dr. Peter J. Sherlock of Lockridge died at Hot Springs, Arkansas, December 21, 1926, from an attack of apoplexy.

Dr. Sherlock was born in Marion county near Knoxville in 1885; graduated from the Knoxville High School, class 1905; prepared for his medical course at Drake University and graduated from the Iowa University School of Medicine with the class of 1910 and at once located in practice at Lockridge. Dr. Sherlock was married in 1914 to Miss Stella Graber of New London, who died in 1918.

---

Dr. John P. Mullin of Iowa City, died at Mercy Hospital, April 6, 1927. Dr. Mullin was born in Ireland and came to the United States with his parents in childhood. He spent nearly all his life in Iowa City, graduating from the medical department, Iowa State University in 1895. October 16, 1898 he married Miss Margaret Mahan, who died in 1915. Dr. Mullin in addition to his professional duties was active in public affairs.

---

Myrta Edith Morgridge Norton was born at Montrose, Iowa, September 1, 1870, and when eight years of age came to Muscatine with her parents, Doctor and Mrs. G. O. Morgridge, and lived here until her death May 14, 1927, of general carcinomatosis or cancer.

She received her education in the public schools of Muscatine and Western College for Women at Oxford, Ohio.

On June 7, 1893, she was married to Doctor W. S. Norton at Los Cerrillos, New Mexico.

She was for many years a member of the First Congregational church of Muscatine and in January, 1927, united with the First Church of Christ Scientist.

She is survived by her husband, Doctor W. S. Norton, one daughter, Miss Ruth Norton, and her mother, Mrs. Ruth Morgridge.

Her father, Doctor G. O. Morgridge, and one brother, Doctor Henry W. Morgridge, preceded her in death.

There being but two living members of her father's family, both cousins of Mrs. Norton, Mr. Will O. Morgridge and Mr. George B. Morgridge, the latter editor and owner of the Sierra Madre News, at Sierra Madre, California.



## POLLINOSIS—"HAY FEVER"

Pollen-free air to breathe is one solution of the problem of pollinosis, but a costly one. Most hay-fever sufferers can't afford it. For them it is a case of the mountain not coming to Mahomet, and Mahomet not going to the mountain. The status quo prevails.

Fortunately these unfortunates have a remedy in specific immunization: the only question is, "When shall it be done?" And, incidentally, "What pollen extract shall be used in the immunizing process?"

It is none too early right now to start the immunizing treatment, which requires about six weeks for completion—fifteen injections at intervals of three or four days.

As to choice of pollen extracts: Since these extracts keep better in concentrated form, they are offered in this form by some manufacturers, notably by Parke, Davis & Co., who advertise their product elsewhere in this issue.

With the concentrated extract three vials (closed with thin rubber caps) of diluent are supplied, and in diluting the extract the physician has only to withdraw it in his syringe from the original package and place it in the first of the three vials of diluent, then take up one-half cc. of this dilution and place it in vial No. 2, and then one-half cc. of this dilution for vial No. 3. It can be done almost as quickly as it can be described. The physician then has three dilutions for the graded doses, all protected from the air; and a table of doses is supplied with the material.

Parke, Davis & Co. offer an illustrated book—on hay fever. Physicians are invited to write for it.

## BOOK REVIEWS

### PRACTICE OF MEDICINE

By A. A. Stevens, M.D., Professor of Applied Therapeutics in the University of Pennsylvania. Second Edition, Entirely Reset. Octavo of 1175 Pages. W. B. Saunders Company, 1926. Price \$7.50, Net.

The advances in medicine since the appearance of the first edition are shown by the enumeration of new subjects set forth in the preface, too numerous to present at this time. But special reference may be made to syphilis of the circulatory system, which enters so largely into our consideration of chronic forms of disease, especially of the heart and aorta. The arrangement of the various subjects that make up a book on the modern practice is admirable, and each subject receives a fair degree of attention. As a one volume work on the practice of medicine and the moderate price, it should appeal to the general practitioner. We feel after a careful consideration of the entire book that we can cordially recommend this practically new work to the medical profession.

## THE SURGICAL CLINICS OF NORTH AMERICA

Volume 6; Number 3; August, 1926; 324 Pages with 101 Illustrations. W. B. Saunders Company, 1926. Price: Paper \$12.00, Cloth \$16.00, Net.

As we examine each succeeding number of the Chicago Clinics we look for new names and the disappearance of old ones. For many years we have lived under the shadow of Chicago hospitals and Chicago surgeons and have seen the rise of the men who are now to supply the material for succeeding numbers of the Surgical Clinics of North America. We are attracted first by a rather full clinic by Dr. C. A. Hedblom of the University of Illinois, who, while well known in surgical fields, has only recently taken up his work in Chicago. Following Dr. Hedblom comes Dr. Hugh McKenna of St. Joseph Hospital, who presents an interesting clinic; one a case of Kohler's Disease which appears to be a disease of the second metatarsal bone, treated by dissecting out the enlarged distal end of the bone, followed by cure. This method of treatment seems more successful than rest in plaster Paris. Dr. Daniel N. Eisendrath gives a clinic study in his special field of surgery. The name of Andrews appears under the name of Edmund Andrews, a grandson, we take it, of our old time friend Dr. Edmunds Andrews, one of the great surgeons who made Chicago surgery famous. We should, also, note the presence of the clinic of Dr. Arthur Dean Bevan, the introduction to this clinic number.

## THE MEDICAL CLINICS OF NORTH AMERICA

Volume Ten, Number Three; Octavo of 275 Pages with 55 Illustrations. Per Clinic Year: Paper \$12.00, Cloth \$16.00, Net. W. B. Saunders Company.

This is a Mayo Clinic Number and contains a long series of interesting subjects, a few of which we may note. An important series of related forms of disease are: Differential Diagnosis and Medical and Orthopedic Care of Several Different Forms of Chronic Arthritis, by Philip S. Hench and Paul N. Jepson; Atypical Vascular Disease Affecting the Extremities, by Edgar V. Allen and George E. Brown. These two clinics are of peculiar interest. The heart receives consideration in three important clinics: Infarction of the Interventricular Septum with Complete Heart-Block and Stokes-Adams Seizures, by Frederick A. Willius; Idiopathic Hypertension, Diagnosis and Treatment, by Walter R. Johnson and S. Franklin Adams; The Use of Dietetics in Cardiac Edema, by Minard F. Jacobs and Normal M. Keith. Another interesting clinic is by Edwin G. Bannic on the Effect of Intravenous Treatment in Uremia. These clinics are noted in particular but there are others of equal interest in this valuable clinic number.

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, AUGUST, 1927

No. 8

## NOTES ON HEMATOLOGIC SUBJECTS\*

J. H. MUSSER, M.D., New Orleans

(From the Department of Medicine, Tulane University of Louisiana)

From prehistoric days to the present time, the blood has been a subject of mystery and mysticism. Pythagoras (580-489 B. C.) and his school taught and believed that there were four elements—earth, air, fire and water, which had the qualities of dryness, coldness, heat and moisture and which in turn corresponded to the four humors of the body—blood, phlegm, yellow bile and black bile. By combinations, these qualities could be arranged most complexly and upon these combinations depended the various aspects of diseases. Nearly a hundred years later, Hippocrates taught that all disease depended upon disorders of the humors, the fluids of the body, and of these the blood was of supreme importance. This humoral theory of Hippocrates was to dominate medicine for many centuries.

The next great figure in Greco-medical history, Galen, the peripatetic theorist and physician, wove into his own conception of disease the humoral Hippocratic theory with the Pythagorean concept of the four humors, to produce a system of medicine which, based upon dogmatism, was to rule medical thought until the time of the Renaissance—the rebirth not only of art and science, but of medicine, religion, government, learning. Greek civilization was not the only civilization of the time to know and to recognize the importance of the blood. The soul and the blood were considered identical by the great religious book of laws of the Jewish people. The Talmud was compiled, it is true, four centuries after Hippocrates, but the work represents the accumulated thought and observations of generations of priests rather than years of life of an individual or individuals living at the same time.

With the Renaissance came the sudden accretion of our knowledge of medicine, which had

lain dormant for fourteen hundred years, to which we are adding to this day little by little, more and more. It was not until two hundred years after the beginning of the period of mental and cultural awakening that the great discovery of the circulation of the blood by William Harvey revolutionized the current concepts of this body fluid. Nearly one hundred years before Harvey, Cesalpino had advanced as a theory the movement of the blood in the pulmonary and systemic circulation, but it remained for Harvey to demonstrate by the experimental method, the proof of this unproved assumption.

Following the discovery of the circulation, the next great advance in the study of the physiology and anatomy of the blood was the description of the erythrocytes by the Dutch microscopist, Leeuwenhoek (1674). Slightly over a century later Hewson was to describe the important features of the coagulation of the blood (1771), while nearly seventy years later, Bischoff, the Hannoverian, first demonstrated the presence of the blood gases, carbon dioxide and oxygen. About this same time, Nasse (1835), wrote upon the occurrence of cells in the blood other than the erythrocytes, but it is to Virchow, Ehrlich, Schultze, and Metchnikoff that we owe most of our present day knowledge of the form and function of the leucocyte.

*Histogenesis*—For many years a question that has agitated hematologists has been the origin of the blood cells. Ehrlich and his followers first maintained that the origin of the blood cells was polyphyletic; that is to say, that there are definite stem cells for the several blood cells in the circulation. The more modern monophyletic school, of which Pappenheim, Ferrata and Maximow are the outstanding names, maintain the theory that the blood cells arise from one mother cell and that this primitive cell may develop into any one of the several types of blood cells. By methods of supravital staining, Sabin has shown that the original contention of Ehrlich that there were several stem cells is probably correct. Sabin reviews the origin of the cells

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



in the blood and has this to say (Origin of the Cells of the Blood, Florence Sabin, Physiological Reviews, 2:38-69, January, 1922). "There are three strains of cells of the connective tissue which contribute to the blood cells. The first of these are angioblasts, from which come erythrocytes and monocytes, the large mononuclear and the transitional form of Ehrlich. The second strain is the granulocyte, from which comes the neutrophilic leucocyte. The third strain is the lymphocyte which occurs in lymph glands, hemolymph glands and spleen, as well as the small follicles and the lymphatic capillaries. Closely related to this cell and morphologically identical is the clasmatocyte. The granulocytic cells are highly ameboid. The monocytic has a special power in phagocytosis. The lymphocyte plays an important role in certain types of immunity and is markedly sensitive to roentgen rays." In this connection it is interesting to speculate upon the role of the lymphocyte in the virus infections. Does the lymphocyte react to a foreign invader, the virus, as does the polymorphonuclear leucocyte to bacteria? Sabin differs, as a result of her studies, from Ehrlich in that she does not think that there are two groups of blood forming organs—the bone marrow and the lymph glands. Certainly in the embryo the origin of the blood in the connective tissues is widely spread. Under normal conditions, however, the red cells arise in the bone marrow. The lymphocytes arise in the bone marrow as well as in the lymphoid tissue, while the granulocytes cannot be held to a restricted bone marrow origin. It is only fair to add that in this country Maximow and Lewis (Lewis, Warren H., The Transformation of Mononuclear Blood Cells into Macrophages, Epithelioid Cells, and Giant Cells. Harvey Lectures, 1925-1926, p. 77), among outstanding figures, disagree with this conception of Sabin.

*Functions of the Blood*—The blood is the great common carrier of the body. It represents the transport system of the organism and it is by this system that there is carried to the tissues food and nourishment, while from it is removed waste products and effete matter. In addition to food and waste, the blood carries other important constituents, some in large and some in small quantities, but all of importance to the proper maintenance of life. In performing its functions, more organs are required in the human body to carry on the purposes of this tissue than any other one collection of cells. Practically all the organs of the body except those connected with the alimentary tract and the cen-

tral nervous system have for their purpose the propulsion and aeration of the blood and the removal from it of the waste products which are subsequently eliminated through the intestinal canal or through the kidneys and skin. At the same time, the bone marrow, the reticulo-endothelial system, is instrumental in supplying new elements for those that were exhausted by time and wear and tear, while the spleen, as Barcroft (Barcroft, Joseph: Recent Knowledge of the Spleen, The Lancet, London, 1:319, February 14, 1925), has shown, is acting not only as a cemetery of the senile red cells, but also as a reservoir for the storage of the functioning cells to be called upon when needed and for storage for the plasma of the blood. In this way it becomes a very definite part of the vascular system. It is a reservoir of corpuscles, fitted by its reticulum to retain them and by its muscular qualities to drive them out when occasion requires.

The quantity of blood in the body is of extreme importance. Normally, the plasma is about one-twentieth, or 5 per cent of the body weight, whereas the total volume of the blood is approximately 8.8 per cent of the body weight, so that it may be seen that this is equivalent roughly to about six liters of fluid. The estimation of blood volume may be done with a relative degree of accuracy. The only method that I have employed has been the vital red method of Keith, Rowntree and Geraghty (Keith, N. M., Rowntree, L. G. and Geraghty, J. T., A Method for the Determination of Plasma and Blood Volume, Arch. Int. Med., 1915, 16:547).

Employing this method, it is shown that it is extremely difficult to increase the amount of blood and, likewise, it is difficult to decrease the blood volume. It is possible to decrease the amount of blood by a severe hemorrhage if this is associated with severe diarrhea and which is accompanied by a great depletion of water. All these conditions, however, are markedly pathologic. It may be possible to increase blood volume by injection of salt solution, in which circumstance the solution is hypertonic and the fluid is attracted from the tissue. This is but a temporary measure and the blood volume returns promptly to the previous state. It is shown by studies made during the war that decrease in blood volume, either actually or by its becoming lost to the circulation by stagnation in the capillary system, was the most important feature of the shock-hemorrhage symptoms which arose after wounds. Attempts to increase the blood volume were made by means of acacia solution, a gummy material which was believed to be re-

tained in the circulation longer than salt solution, but it was found to be of only limited value. Practically the only fluid which is of value in order to restore blood volume was blood from another individual. Hydremia occurs without a true alteration in the total blood volume. It implies an increase of the plasma and any of the cells. In edema there is often an hydremia or there may be hydremia associated with increased blood volume. It has been shown that the state of hydremia depends to a very large extent on the concentration of blood proteins. Blood proteins are increased during exercise on account of the imbibition of the water by the tissues, while during profuse bleeding concentration of blood protein is low, because of the mechanical loss and the dilution of the blood by the fluid drawn from the tissues. In discussing water metabolism, the condition of the blood in the estimation of the degree of hydremia is of considerable importance.

Blood has as one of its important functions the transportation of oxygen to the tissues and the return of  $\text{CO}_2$  to the lungs. This respiratory function of the blood depends upon the hemoglobin content and the iron and upon the size of the red cells. In a known individual, the surface area of the red cells has been estimated to be 3,200 square meters. This gives a very enormous surface to the absorption of oxygen from the air and from the alveoli, particularly as the red cells flow through the millions of lung capillaries in a very thin stream, one corpuscle thick. With a knowledge of the surface area of the red cells, an explanation may be offered for the large size of the red cells in pernicious anemia. The surface area is markedly reduced by the reduction in the number of the circulating red cells. Therefore as a compensatory function the surface area of each individual cell is increased in size in order that it may be able to carry more oxygen. Without this compensatory function of the megalocytes, it is safe to presume that the extremely anemic individual would not long survive, and such an assumption is probably correct, as the megalocytic characteristic disappears to a great extent in individuals about to die of pernicious anemia or in one recovering from the disease. The question of oxygen is of direct importance to the subject of hemopoiesis. The need of oxygen is a direct stimulation to this tissue of the bone marrow because we find that the red cells are produced in greater number in conditions in which there is lack of oxygen, as for example polycythemia, which develops in high altitudes, or the polycythemia which de-

velops as a result of circulatory defects in congenital heart disease which prevents the proper absorption of oxygen by the lungs.

In a discussion of the transportation of food by the blood to the tissues in an available, soluble form, it must not be forgotten that other important group constituents besides the ones we usually consider necessary, the monosaccharides, the amino acids, the fats, but also certain mineral salts necessary to its life are transmitted by this important tissue. Calcium, potassium, phosphorus, sodium, magnesium, iron, to mention the more important elements, are brought to the more solid tissues. At the same time, there is also carried certain ferments such as protease, antitrypsin and amylase. Catalase, the ferment which liberates oxygen from hydrogen peroxide, is also found in the blood, but several years ago Krumbhaar and I (Krumbhaar, E. B. and Musser, J. H., *The Catalase Content of the Blood in Different Types of Anemia*, Jour. Am. Med. Assn., 1920, 75, 104) found that it apparently varies according to the concentration of the red blood cells. The rate is not materially effected in the various types of anemia and for this reason the estimation of the catalase content of the blood is of no clinical significance.

Other important constituents of the blood which are necessary to life but which are unseen and unrecognized except by biologic methods are the secretions from the glands of internal secretion. Necessary constituents liberated by these organs are carried throughout the body where they are needed. Insulin is carried to the muscles; thyroxin to the heart, muscles, central nervous system; cardaissin is also carried to the heart, and so with the other internal secretions.

Other important bodies are transported by the blood and the recognition of these is often of great importance to the clinician. The estimation of the amount of bilirubin is an index of the amount of bile retention. Van den Bergh's reaction indicates to us whether the bile is a process of extra fermentation or whether it is simply retained within the body. In disease the acetone bodies are discovered and give us important clinical data. The same may be said of the lactic acid, which may be estimated qualitatively as well as quantitatively in the blood. The usual studies of the blood chemistry, such as the estimation of non-protein nitrogen, uric acid, sugar are too well known to require comment. The perusal of an exhaustive review by Myers will amply repay those who are interested in the rarer, less frequently employed chemical exam-



inations of the blood. (Myers, V. C., Chemical Changes in the Blood and Their Clinical Significance, *Physiol. Review*, 1924, 4, 274.)

The blood stream transports those very important factors of immunity. The blood contains the antibodies—those interesting, unseen and unknown but extremely vital elements in the defense against disease substances. Antibodies such as the agglutinins, precipitins, opsonins, hemolysins and bacteriolysins are important for our defense reaction, but they are also of value in the determination of disease. The agglutinins yield the valuable agglutination reactions upon which we are wont to make a diagnosis of typhoid fever, bacillary dysentery. The precipitation reaction of Kahn gives us much diagnostic information in syphilis. The opsonins are occasionally used as an index of the degree of resistance. Antitoxins circulate in the blood. The estimation of the amount of antitoxin in the blood is now a well-known clinical procedure in diphtheria and to a lesser extent in scarlet fever. There is strong likelihood that methods will be evolved to determine the amount of circulating antitoxin in such conditions as measles and erysipelas.

#### CLINICAL CONSIDERATIONS

In a rapid survey and quick review of a very large subject, it is of course impossible to take up more than the outstanding phases of a particular subject. I shall not attempt, therefore, in any way, form or manner to discuss the clinical features of blood diseases, but will merely point out observations that to me seem to be of interest in conjunction with certain types of diseases of the blood.

Morawitz's classification affords a convenient grouping of the different types of anemia. He divides anemia into three main divisions according to the etiology of the deficient blood: 1—blood loss; 2—increased blood destruction; 3—deficient blood regeneration.

Under blood loss I will simply call attention to the fact that it has been estimated that acute loss of blood may be followed by death if more than 5.5 per cent of the body weight of blood is lost. It is a question of the volume of blood lost rather than a question of the number of erythrocytes retained, because in chronic prolonged anemias an enormous loss of red cells may take place as a result of intermittent irregular bleeding, whereas the plasma is unaffected or is continuously restored, so that there is no reduction of blood volume, though the anemia would seem to be of sufficient severity to make doubtful the possibility of the patient's recovering.

Increased blood destruction has as one of its sub-divisions pernicious anemia. This disease is an interesting one from many standpoints. Of particular interest is the syndrome upon which a diagnosis is made. Absence of free HCl and alterations in the blood count and blood changes are essential findings upon which to base a diagnosis, but additional elements in the syndrome which are of great importance are the cord changes and the glossitis. This type of anemia is essentially megalocytic. We have been interested in the size of the red cells and we have been interested in the difficulty of differentiating sprue from pernicious anemia. By an estimation of the size of the red cells, we are not able to make a diagnosis and differentiation between these two conditions. It has been of interest also to note that although we have not sufficient observations upon which to make a definite statement to that effect, that the size of the cells in conditions in which death is approaching is smaller than it would be in the cases in which remissions are possible. Minot (Medearis, D. N. and Minot, G., *Studies on Red Blood Cell Diameter*, *Jour. Clin. Invest.*, 1927, 3, 541) has noted that the same thing takes place when patients are at the height of their remissions. As the red cells count approaches normal, the megalocytic characteristics of the red cells disappear.

The etiology of pernicious anemia is unknown. For various reasons we are convinced that it is a hemolytic process which is responsible for the blood picture and the general condition of the patient. In line with this conception, the work of Moench, Kahn and Torrey (Moench, L. M., Kahn, M. C. and Torrey, J. C., *Analysis of Fecal Flora in Thirty-three Cases of Pernicious Anemia with Particular Reference to B. Welchii*, *Jour. Inf. Dis.*, 1925, 37, 161) deserves to be mentioned. They show that in patients with pernicious anemia *Bacillus welchii*, a powerful hemolytic organism, is present in large numbers in the colon. The colon organism has also been implicated as a possible hemolytic agent and because patients do not have the normal action of the gastric juice, the colon group can thrive most abundantly in the small intestine. On this basis, the removal of the place of election for growth of the colon organism, colectomy has been suggested as a therapeutic procedure, while incidentally it might be mentioned, in discussing the surgical cure of pernicious anemia, that in Germany the surgeons are removing the long bones. Another interesting observation upon the etiology of this disease has been the observation of

Doan (Doan, C. A., The Type of Phagocytic Cell and Its Relation in Human Bone Marrow and Spleen, Jour. Exper. Med., 1926, 43, 289) who found that in the bone marrow of patients suffering from pernicious anemia, the clasmato-cytes, phagocytic cells which I have already mentioned, were increased three or four fold and were actively destroying the young erythrocytes before their liberation from the bone marrow—a very pretty explanation for the fact that in pernicious anemia a red, actively functioning bone marrow will be seen at post-mortem and yet there is a diminution in the number of red cells.

The treatment of pernicious anemia has been definitely advanced in the past few years. By one of several methods it is found possible to institute remissions of more or less prolonged duration in patients suffering from this blood disease. Splenectomy a few years ago was a measure which was considered to have great capability of causing improvement. The measure was overdone and many cases were operated upon for which there was no reason to suspect that they would be benefited by this procedure. I believe that selected cases will be benefited by splenectomy. Such cases as have enlargement of the spleen and definite icteroid tints to the sclerae are the type of cases to select for operation. W. J. Mayo (Mayo, W. J., The Mortality and End Results of Splenectomy, Am. J. Med. Sci., 1926, 171, 313-320), among surgeons, has not lost his faith in the value of this operation, which Krumbhaar showed a few years ago gave very valuable results. Transfusion may institute remissions. Hematological studies have shown that after large transfusion the response of the bone marrow is not particularly brisk, in fact is almost nil, and the cells which we recognize as young cells, namely those which contain reticulate fibrils and nuclear shadows, are of a large size and show increased resistance to hypotonic salt solution, disappear until the time that the effect of transfusion has worn off, whereas they are increased after small blood injections. For this reason, it is advisable to repeat frequently transfusion rather than overwhelm the blood forming tissues by one large transfusion. Of note also is the new dietary regimen which has been introduced by Minot and Murphy, (Minot, G. R., and Murphy, W. P., Treatment of Pernicious Anemia by Special Diet, J. Am. Med. Assn., 1926, 87, 470-476) which offers great possibilities for relief of the symptoms. Minot has had excellent results, he writes me in a personal communication, which

have been well maintained, and though I have not had the opportunity of knowing about more than a few cases personally, yet in those cases the result has been most gratifying.

*Secondary Anemia*—Secondary anemia of unknown cause is quite frequent in the South. An explanation for this I am not prepared to make, though in a paper (Musser, J. H., Anemia in the South, Am. Clin. Med., on press) on the subject I suggested several reasons which might possibly account for the anemia. Secondary anemia due to increased blood destruction is quite common in the South, but not nearly as common as at one time or as is generally believed. Anemia due to increased blood destruction by the malaria plasmodium is rare, whereas anemia due to uncinariasis is relatively common. Some years ago in work on the spleen, Krumbhaar and I (Krumbhaar, E. B., and Musser, J. H., Concerning the Supposed Regulatory Influence of the Spleen in the Formation and Destruction of Erythrocytes, Jour. Exper. Med., 1914, 20, 108) found that splenic extract apparently exerted a hemagenitic effect. Leake and Evans, of Wisconsin (Leake, C. D., and Evans, J. S., Bone Marrow and Spleen in the Treatment of Anemia, Am. J. Med. Sci., 1924, 168, 819) have gone much more extensively into the stimulating qualities not only of the spleen but of the bone marrow and as a result of their researches a preparation of spleen and bone marrow combined has been found to give excellent results in the treatment of secondary anemia.

*Chlorosis*—Chlorosis represents a type of disease due to deficient blood regeneration. A most interesting observation in conjunction with this disease is the rapidity with which it is apparently disappearing from the face of the earth. Chlorosis is essentially a disease of young women. Is it possible that the improved hygiene of the present-day, corsetless young female is responsible for a greater production of hemoglobin than in by-gone years?

*Sickle Cell Anemia*—Sickle cell anemia is an interesting type of anemia which was first described by Dr. Herrick in 1910. It is a disorder associated with peculiar alteration of the shape of many of the red cells, secondary anemia and the tendency to leg ulcers. First it was believed that the disease was more prevalent in the South than in the North. A recent publication of Cooley and Lee (Cooley, T. B., and Lee, P., Sickle Cell Phenomenon, Am. Jour. Dis. Child., 1926, 32, 334) shows that it is quite common in the negroes of the North. On the other hand,



a large number of cases have come to the colored female clinic at Charity Hospital. J. H. Smith, Jr., has been able to pick up only one or two cases from examination of the fresh smears. On the other hand, he has been able to find a considerable number of patients, 5 per cent in 100 cases, in whom the crescentic shapes would appear after the blood had been allowed to stand for a time.

*Blood Changes in Conjunction with Mouth Disorders*—The very frequent association of the signs and findings of Vincent's angina with acute leukemia is a well known observation. However, other extremely interesting forms of anemia have been described in conjunction with mouth disorders. Europeans have been greatly interested in a condition spoken of as agranulocytic angina, in which there is associated with a severe angina a marked reduction in the production of polymorphonuclear neutrophils, the condition going on to death. I have had the opportunity of seeing several patients with severe mouth lesions complicated by the ubiquitous Vincent's organism in whom there was a marked reduction in the number of granulocytes, but these individuals all got well. These cases resemble very much in many respects the condition so well described by Longcope as infectious mononucleosis. The mononuclears were increased and the polymorphonuclears were decreased. The total count, however, of the white cells was not as great as we find in infectious mononucleosis nor was the count as low as is gotten in agranulocytic angina. I am at a loss to classify this particular condition. Incidentally, in mentioning infectious mononucleosis at this time, I might call attention to the fact that it is probably a relatively frequent disorder, that in all likelihood it is an infection readily transmitted, and occurs at times in epidemics. Guthrie and Pessel (Guthrie, C. C. and Pessel, J. F., An Epidemic of "Glandular Fever" in a Preparatory School for Boys, Am. J. Dis. Child. 1925, 29, 492) have reported such an occurrence. Very recently I saw a negro with a retropharyngeal abscess and marked cervical adenopathy in whom the total leucocyte count was under 10,000 and the polymorphonuclears were under 45 per cent with a corresponding increase in the lymphocytes.

*Essential Thrombocytopenia.* This interesting condition, which has been generally recognized previously as a type of purpura hemorrhagica and which now masquerades under a new name, has received considerable attention in the past few years because of the brilliant, almost spec-

tacular results which follow splenectomy. The present name, essential thrombocytopenia, implies that there is a reduction in the number of thrombocytes of unknown cause. Just what it is that produces this reduction in the thrombocytes is not known, although in many respects it seems quite possible that it is a result of some specific thrombocytic toxin liberated, in all probability, as a result of bacterial infection. The disease is probably associated with changes in the blood-vessels, as well as in the number of circulating blood platelets, as in this way only can the petechiae, subcutaneous hemorrhages and mucous hemorrhages be explained. In some respects the disease resembles hemophilia, but a hemophilic is always a hemophilic, whereas people recover from attacks of hemorrhagic purpura, although the tendency to the disease is apparently still present. I recollect a patient whom I saw some years ago who fulfilled all the classical, clinical demands of the disease. She left the hospital apparently cured. A year and a half later she was operated on for a gastric ulcer on account of sudden gastric hemorrhage. No ulcer was found and she died in a few hours from hemorrhage. In such a thrombocytopenia there is a low platelet count, normal coagulation time with prolonged bleeding, whereas in hemophilia you have prolonged coagulation time, a somewhat prolonged bleeding time and the usual number of platelets. In thrombocytopenia there can be no reasonable explanation for the startling results of splenectomy except that the spleen does play some part in the hemorrhagic tendency and the destruction of the platelets, though the curative results of splenectomy are too assured not to believe that the spleen plays an important role, in some way, in the pathogenesis of this particular blood dyscrasia. This latter statement is made advisedly and despite the fact that the platelet count may not be affected by the operation.

*Aplastic Anemia*—Closely allied to thrombocytopenia, in its clinical manifestations at least, is the condition spoken of as aplastic anemia. In this condition, however, we note a marked reduction in the number of leucocytes, particularly granular cells, as well as the pronounced thrombocytopenia. Primary aplastic anemia was described some years ago, but was not very well known until the last ten or fifteen years. Now we are coming to recognize the disease much more frequently than formerly. Ordinary acute aplastic anemia is a disease which, like thrombocytopenia, is apparently very largely dependent on bacterial infection or some other hypothetical

bone marrow toxin (Musser, J. H., Study of a Case of Aplastic Anemia, Arch. Int. Med., 1914, 14, 275), but the term "aplastic anemia" is now very frequently used to describe aregenerative processes in the bone marrow, such as occurs in the last stages of an occasional case of pernicious anemia, although this is rare, because usually the bone marrow of patients dying of pernicious anemia is hyperplastic. It is becoming more frequently recognized, however, as a secondary manifestation of bone marrow hypoplasia because of the increased use of the roentgen-ray and radium, physical agents which have a distinct effect upon the bone marrow. These agents are being employed more and more in the treatment of many malignant conditions. It is quite possible that they may at times help to produce the severe anemia which we sometimes see in patients with malignant disease treated by radium.

*Erythemia*—This rare disease is mentioned only for the purpose of calling attention to the fact that it is readily controlled by the use of phenylhydrazin. I saw a most magnificent, typical case of this disease last fall, on which roentgen and other forms of therapy had no effect, but phenylhydrazin reduced the blood count and controlled the symptoms very markedly, so that at the present time this patient with erythemia is in very excellent condition.

*Iron in the Treatment of Anemia*—The use of inorganic iron in anemia of all types and any form has been used empirically for an untold number of years. It is probable that the lack of iron, which is a concomitant of anemia, naturally explains the use of this drug. Experiments which have been carried out by Whipple and his associates showed rather conclusively that inorganic iron had little value in the treatment of anemia. I repeated his experiments (Musser, J. H., The Influence of Inorganic Iron on the Regeneration of Blood after Hemorrhagic Anemia, Arch. Int. Med., 1921, 28, 638) and found that in animals rendered anemic by bleeding, they regenerated blood no more rapidly when given iron than did the controls. Williamson and Ets (Williamson, C. S. and Ets, H. N., Value of Iron in Anemia, Arch. Int. Med., 1925, 36, 333) in their experiments with rats, whose hemoglobin was followed in a very large series of animals, found inorganic iron had no therapeutic effect in any way. On the other hand, Whipple and Robscheit-Robbins (Whipple, G. H. and Robscheit-Robbins, F. S., Blood Regen-

eration in Severe Anemia, Am. Jour. of Physiol., 1925, 72, 408) found that food iron had a very definite and positive regenerative effect on the red blood cells.

*Sedimentation Rate of Erythrocytes*—The rapidity of sedimentation of erythrocytes when the blood is centrifuged has been extensively employed in the diagnosis and prognosis of numerous conditions. Extensive clinical studies have been made in Europe, judging from the number of references one can find about this particular diagnostic test. It has been used but little in this country. The sedimentation rate is increased in acute inflammations, pregnancy, tuberculosis and malignancy. (Cooper, H. N., Sedimentation Rate of Red Blood Cells, Jour. Lab. and Clinical Med., 1926, 11, 615.) The explanation of the sedimentation reaction has been based upon physical and chemical changes of the plasma. Rubin and Smith (Rubin, E. H., and Smith, N. N., The Relation of Hemoglobin, Cell Count and Cell Volume to the Erythrocyte Sedimentation Reaction, Arch. Int. Med., 1927, 39, 303) believe that a considerable source of error has sprung up in the cumulative clinical reports upon this test because the anticoagulants that are used play a very important part in effecting the size of the red cells, artificially increasing the size of the cells, whereas blood can be made to settle rapidly by decreasing the cell volume. By using hirudinized blood, they did away with such complicating factors as dilution and osmotic pressure, which are present when anti-coagulants like citrates or oxalates are used.

#### SUMMARY

I have attempted to discuss with you today some of the problems and some of the more recent studies of hematology. I have not attempted to discuss all of the recent advances in the study of diseases of the blood and blood forming organs nor have I undertaken to compile a complete review of the contemporaneous literature. I have attempted simply to give you my impressions and my ideas about blood conditions, considered from the point of view of a clinician. I have done this with the idea of presenting to you only a brief summary and a concise survey of the subject, believing that such a review may have some intrinsic value. The sketchiness of my presentation is obvious; I trust that my auditors will appreciate the why of the method that I have used to prepond the subject of my address.



## THE THYMUS GLAND\*

*Some Clinical and Roentgenological Observations  
Based Upon the Study of Thirty-Nine Cases*

HAROLD A. SPILMAN, B.S., M.D., Ottumwa

The thymus gland has been a subject of interest to anatomists, physiologists and clinicians since the time of Galen in the seventeenth century. My interest was aroused in February, 1923, by the death, twenty-four hours after birth, of an apparently normal infant following acute respiratory symptoms sudden in onset and of only a few hours duration. At autopsy no pathology was found except hypertrophy of the thymus. Since then I have collected a series of thirty-nine cases of symptom-producing thymi.

Early in embryonic life five pairs of pouches develop from the lateral walls of the pharynx. From the anterior diverticula of the third pair the two lobes of the thymus gland develop. The entodermal tissue is soon invaded by cells from the mesoderm which rapidly proliferate to give the gland its predominant lymphoid character; from the entoderm is formed the reticulum and the characteristic Hassal's corpuscles.

The anterior diverticula of the fourth pharyngeal pouches usually atrophy but may persist as an accessory thymus or accessory thymic nodules.

From its original cervical position each lobe migrates downward and medially, eventually fusing and occupying a position in the anterior upper mediastinum.

The thymus is closely applied to the posterior surface of the sternum and extends from the suprasternal notch to about the fourth costosternal junction. Posteriorly the gland lies upon the heart, the great vessels at its base and the trachea. Laterally it is overlapped by the margins of the lungs.

As the result of his anatomic studies Noback has found that the thymus in the last half of foetal life, and in full-term still born infants, is broader than long with laterally bulging sides which are not overlapped by the lungs; it extends into the neck but does not extend downward over the ventricle. In 7 per cent he found projection of the substance of the gland posteriorly. He calls attention to the effect of expansion of the lungs in compressing and narrowing the gland with an attendant elongation downward over the ventricles.

Wasson has painstakingly studied the chest of infants under two years of age, carefully correlating roentgenographic, necropsy and anatomic findings. He calls attention to the variability in size of the thymus in different types of infants and also in the same infant at different times. He classifies thymi according to their width as shown in the roentgenogram as small, moderate and large, using the thoracic vertebra at the second interspace for comparison. He notes an increase in size up to one year with subsequent reduction.

The function of the thymus cannot be described with absolute finality, but in the light of our present knowledge it must be grouped with the lymphoid system. The elaboration of an internal secretion by this gland has not been proven but its existence cannot be absolutely denied. Much of the evidence which has been presented suggests that this organ is concerned with the metabolism of phosphorous and also with the development of immunity and resistance to infection.

The essential pathology in enlarged thymus is hyperplasia of the lymphoid tissue. There seem to be two classes of cases; in the one hypertrophy of the thymus is apparently the only abnormality; in the other there is a general hyperplasia of the lymphoid tissues associated with hypoplasia of the vascular system and a characteristic blood picture. It seems probable that there are all degrees of gradation between these two extremes.

While many theories have been advanced, that of mechanical pressure affords the most satisfactory explanation of the symptoms. The upper thoracic opening of a young child is about 2 to 3 cm.; this is the "critical space of Grawitz" where the thymus, great vessels, trachea and mediastinal nerves are encircled by a solid bony girdle. That tracheostenosis is often a factor has been proven at autopsy. However, compression of the great vessels and nerves may explain some cases, especially when we remember that the thymus is a very vascular organ said to have a more generous arterial supply than venous drainage and that the pressure exerted by it during life cannot be measured.

The symptoms of thymic enlargement are: attacks of choking, cyanosis, dyspnea and stridor. In this series of cases most of the parents consulted the doctor because the child had "caught cold" or because its food "did not agree with it". Cough, often worse at night, snuffling, noisy respiration, a croupy condition, or discharge of varying amounts of mucus from nose or mouth

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.

are among the symptoms encountered. Many of the cases show an unusual amount of gaseous distention, nursing difficulties and regurgitation. Flabby tissues, lack of resistance to infection, eczema and mental retardation may arouse suspicion. The extremes of obesity and inanition are suggestive. Older children may be brought in for removal of a foreign body from the trachea.

At birth, delay of the initial respiration, cyanosis, feeble cries or respirations and overweight should cause one to think of enlarged thymus. This is especially true if the condition of the infant is not consistent with the character and duration of labor.

Diagnosis of a symptom producing thymus is no more a matter of inspiration or intuition than is any other diagnosis. It requires the same careful, accurate history and thorough physical examination. By close observation of the patient one may see slight, transitory, recurring waves of cyanosis pass over the face or detect a faintly wheezing respiration. The use of the x-ray in the diagnosis of this condition is now practically universal, and, when proper technique is used, is invaluable. Friedlander, who is credited with the first roentgen treatment of severe thymic symptoms in 1905, states that he believes the anteroposterior diameter is more important than the lateral. Nobak draws similar conclusions from his studies. Wasson, however, concludes from his observations that the lateral diameter gives an accurate idea of the size of the thymus and states that, in his experience, the small thick symptom-producing thymus is exceptional. My observations lead me to believe that properly made roentgenograms accurately depict the size of the thymus, that the lateral diameter is the important one in the majority of cases, but that narrow, thick thymi can and do produce symptoms and even death. In the experience of some workers the lateral view has proven of value, showing a retro-displacement of the trachea with thick thymi. The complete blood count may be of value in these cases; recently I have made these examinations before each treatment.

Since its use in competent hands is safe and reliable, the roentgen ray and radium have superseded surgery, with its attendant high mortality, in the treatment of thymic hyperplasia. The dosage and number of treatments should be sufficient to relieve the symptoms but should not be carried beyond this point, since our knowledge of the function of this gland is incomplete and over-treatment might produce undesirable results.

In this series of thirty-nine cases there have been five deaths due to the thymus and three from other causes. Two of the fatal cases received no radiation and the diagnosis was made at autopsy. One of the deaths was due to recurrence after a series of three treatments had relieved the acute symptoms. I believe this death would have been prevented if the infant had been brought back for observation at regular intervals. Another infant was in extremis when treated and died about one hour later. This child was ten days of age and close questioning revealed definite early but very mild symptoms. One death occurred in an infant on the fourth day. While the autopsy showed no pathology except the enlarged thymus, an intracranial injury cannot be ruled out, since it was a difficult forceps case. This child received one x-ray treatment and I now believe the dosage was insufficient.

During the year 1926 we made an effort to obtain a chest roentgenogram of every child born at St. Joseph Hospital during the first ten days of life. Films were obtained of twenty-seven infants; of these, ten were unquestionably normal, ten had suspicious and five had marked supracardiac shadows. Two of these infants had positive roentgenograms and marked clinical symptoms; they were relieved by x-ray therapy. One additional case formerly showing a large thymus was in hospital with bronchopneumonia, but a chest film at this time showed no evidence of thymus enlargement.

#### SUMMARY

Enlarged thymus in infants and young children is not a rare condition. The symptoms may be acute or chronic, severe or mild. Careful history, complete examination, including laryngoscopy when indicated, and the x-ray will enable a correct diagnosis to be made. The roentgenogram gives a true picture of the size of the gland. Radiation, in competent hands, affords a safe and reliable treatment for the condition.

In this paper I have not attempted to prepare a comprehensive monograph dealing with the thymus. It is simply an effort to place before you my conception of this gland resulting from a study of the literature and as interpreted in the light of observation of the cases comprising this series.

The collection of this series of cases has been possible because of the assistance and cooperation afforded me by the St. Joseph and Ottumwa Hospitals and the members of their staffs.

#### BIBLIOGRAPHY

1. Friedlander, A.—*Abt's Pediatrics*, Vol. iv, p. 657.
2. Crotti, A.—*Thyroid and Thymus*, Chap. li, Lea & Febiger.



3. Noback, C. J.—The Thymus in the Newborn and Early Infancy. *J. Radiology*, Nov., 1926.
4. Prentiss and Arey—Embryology.
5. Boyd—Surgical Pathology.
6. Herrick, J. F.—Enlarged Thymus in Infancy, March, 1916, pp. 333-337.
7. Wasson, W. W.—Arch. Otolaryng., Dec., 1926.
8. Pancoast, H. K.—X-Ray Studies of the Chest in Infants and Children. *Atlantic M. J.*, Nov., 1923.
9. Barbour, Orville, and Goin, L. S.—Enlarged Thymus. *Illinois M. J.*, Oct., 1922.
10. Kaliski, S. R.—Symptoms and Differential Diagnosis of Thymus Hyperplasia in Infancy. *Texas State J. M.*, Aug., 1925.
11. Flansburg, H. E.—Thymus Disease in Children with Report of a Case. *Nebraska M. J.*, June, 1923.
12. Waring, A. J.—The Thymus Gland in Infancy and Childhood. *J. M. A., Georgia*, July, 1924.
13. McKinney, J. T.—X-Ray Treatment of Enlarged Thymus in Children. *Virginia M. Monthly*, May, 1925.
14. Freeman, R. G.—Symptoms and Treatment of Thymus Hypertrophy in Infancy. *Arch. Pediat.*, Oct., 1923.
15. Bliss, G. L.—A Study of Thymus Glands. *Arch. Pediat.*, April, 1925.
16. Pfahler, G. E.—The Diagnosis of Enlarged Thymus by the X-Ray, and Treatment by X-Ray or Radium. *Arch. Pediat.*, Jan., 1924, p. 39.
17. Bloom, C. J.—Disturbances of the Thymus Gland in Children. *New Orleans M. & S. J.*, Dec., 1923.
18. Liss, J. E.—The Thymus Shadow in Infants. *Am. J. Dis. Child.*, Sept., 1922.
19. Greenthal, Roy M.—*Am. J. Dis. Child.*, Nov., 1922, pp. 433-440.
20. Parsons, J. P.—Enlarged Thymus—Clinical Findings in a Series of Cases. *M. Clin. N. Amer.*, March, 1923, pp. 1319-1332.
21. Gaarde, F. W.—Clinical Differentiation of Cases with Abnormal X-Ray Shadows in the Mediastinum. *M. Clin. N. Amer.*, Jan., 1925, pp. 1235-1246.
22. Perkins, C. W.—The Thymus Considered with Reference to the Advisability of its Routine X-Ray in Pediatric Surgery. *M. Clin. N. Amer.*, Jan., 1927, pp. 885-905.

## NATURE VS. SCIENCE\*

M. L. TURNER, M.D., Des Moines

The subject of this paper may be misleading, for when any subject is worked out to the last analysis nature and science always agree. But there have been in the past, and are at the present time, many subjects presented and labeled scientific—that did not, and do not coincide with nature. It is these that we want to set opposite each other.

I would not in the least decry any of the things that have been developed in the field of science. The many achievements that have been accomplished—and especially during the last generation—are startling when reviewed. More has been developed during the last fifty years than in the previous five hundred years. It is not necessary to enumerate them. However, there are many things yet to be accomplished before we arrive at the Utopia for which we are striving.

In one of the countries of Asia we learn that in former times medicine was considered an exact science. It was thought and taught that

every disease could be cured by a certain drug. If the physician did not have the required drug with him, all that was necessary was to write the name of the drug on a piece of paper, roll it into a pill and give it to the patient to swallow.

It has not been long since bleeding was considered a scientific remedy for the cure of many ailments. Now it is seldom resorted to.

Instruments for the lancing of gums of little children were scientifically made and used in the torture of children. Nature did not make a mistake that was necessary to be corrected with such instruments, nor did nature ever require a rough, dirty thimble to be rubbed on a baby's gums to force the teeth through, but that was considered scientific a few years ago.

Recently scientific men discovered in terms of calories how much food was necessary for growth and sustenance. That was a splendid achievement but it was not all that nature required, yet there are many people who are still counting their calories.

The past is strewn with wreckage of many mistakes which were labeled scientific. The achievements that have stood are those that coincide with nature.

We are still following many of the teachings of the past. Teachings which are labeled scientific but do not coincide with nature. The late Dr. Rotch, of Boston, once said: "We should investigate and endeavor to copy the various devices which nature makes use of, for we must admit that we are not in a position to try to improve on nature's methods."

Dr. McAllister made this statement before the pediatric section of American Medical Association in 1900: "One-third of all children die before three years." The percentage is not so great now and can be reduced much below the present rate if we will conform more closely to nature's methods.

One of the first conflicts between nature and many of our scientific men comes in the first twenty-four hours of the child's life. I take the following from one of our scientific texts. "In the first twenty-four hours the infant should receive nothing but water. It is well to give one or two ounces every four hours." Some physicians advocate waiting forty-eight hours, and some even seventy-two hours, before putting the babe to the breast. To my mind, that is little short of criminal, and results disastrously to both the mother and child.

The child in utero receives nourishment constantly from the mother's blood. When the cord is tied that supply is cut off, and it must get its

\*Read before the Association of American Teachers of the Diseases of Children, Washington, D. C., Tuesday, May 17, 1927.

nourishment from some other source. Nature intends that it shall receive it through the stomach. The instinct of the babe impels it almost immediately to seek for food and this is manifest when it begins sucking its fists or fingers, often within five or ten minutes after birth. That is the time nature intends and demands it be put to the breast, not twenty-four or forty-eight hours later.

The young of all animals begins nursing in a few minutes after birth. The lamb dies if it does not get food within twenty-four hours after birth, and often it will not survive twelve hours. Nature certainly intends that the new-born babe shall be taken care of as well as the animals.

If the child is too weak to nurse it is more necessary that it should be fed, even if it must be with a dropper or tube, and that very soon after birth. It should have colostrum, not water, brandy or any other substitute.

Many of our scientific men tell us that the babe should have abundance of water. This is not so intended by nature, and nature rebels against it. If it gets sufficient milk to supply its needs the child will be getting three times as much water in proportion to its weight as the average individual will take, including all the liquids taken. If the babe is given water the appetite is partially satisfied, it does not nurse vigorously and the breasts do not receive proper stimulation. None of the animals take water during the first weeks of life.

Water given in the early days, without food, does not prevent inanition fever. Dr. Sedgwick reported on seven hundred babes, taking them alternately, giving one water and another none, and no difference was observed in temperature. Feeding immediately after birth will prevent inanition fever.

A very large per cent of our texts direct that the babe nurse the breasts alternately. That is not nature's plan. None of the animals that are guided by instinct follow such a plan. If the breasts are both emptied at each nursing they will furnish more milk and function a longer period of time.

I am going to emphasize a point here upon which I have found many persons, including physicians, who do not agree with me.

Substantially all of our texts teach that a nursing baby has colic. The young of animals do not have colic. Nature does not put something into the healthy mammary gland of the mother that produces such a condition. I have seen many babies that were reported to have colic by parents and physicians, that were quieted

by giving a complemental feeding and then go to sleep in the usual time. A successful physician whose child was three months old, assured me that the mother was giving more milk than the babe could take, and it was having colic because the mother was worrying on account of sickness of her own mother; but that child took ten ounces of three-fifths milk after nursing both breasts, went to sleep and slept all night. I have seen babies that were over-weight, and gaining more than an ounce per day, cry with so-called colic in the evening when the mother's milk is usually deficient in quantity. There are different types of babies. If it is natural for a baby to be over-weight and it does not get enough food to make it so, it is sure to cry.

Science warns us to beware of over-feeding. When the babe is fed at regular intervals nature directs it to quit when its demands are satisfied. A babe that is allowed to go a long period of time without food may over-eat for one meal, but when nursing regularly it will not do so.

If we received the same food for every meal, three hundred and sixty-five days in the year, even if it was fried chicken, hot biscuits, mashed potatoes, gravy, ice cream and angel food cake, we would not over-eat. The babe gets the same food for every meal. Why should it over-eat?

I have seen many babies that parents and physicians reported had colic from over-eating, take from three to ten ounces of natural food—go to sleep and sleep all night.

Swallowing air is one of the acrobatic feats that science has presented to the world. Nature has so directed the act of swallowing that some substance other than air must be present before the act of swallowing can be completed. The air is forced back through the nasal passage and is not swallowed.

Science has dictated that we should feed concentrated foods, top milk, concentrated carbohydrates and fruits. Nature does not do this.

Systematic care in feeding will develop improvement in the average child, but rich food will only be tolerated for a short time before the child develops a capricious appetite. Concentrated vitamins do not make a balanced diet. We feed animals concentrated foods only when preparing them for market, they do not eat such food when running at large. We are not preparing the child for market—but for a long, healthy life. I am convinced that we would have better health and live longer if we would eat our foods in the strength and proportions that nature gives them to us. When Columbus discovered America, sugar was selling in London at \$275 per hun-



dred pounds. The people were not using much of that concentrated carbohydrate at that time. Now we are consuming nearly one hundred pounds for each individual every year. Certainly nature does not call for such dissipation.

If it had not been for the concentrated forms of corn, rye, barley and fruits, there would have been no demand nor need for the eighteenth amendment.

#### FEEDING AFTER FIRST YEAR

Following is a schedule of feeding from one of our scientific writers and there are many schedules very much like it.

##### One Year:

- 7:00 A. M.—Milk.
- 9:00 A. M.—Orange juice.
- 10:00 A. M.—Cereal and milk.
- 2:00 P. M.—Vegetables and broth.
- 5:00 P. M.—Crackers.
- 6:00 P. M.—Cereals and fruits.

When does the mother find time for recreation?

##### Schedule for Two Years:

- 8:00 A. M.—Cereals, milk and fruits, cooked or raw.
- 10:30 A. M.—Crackers and milk.
- 12:30 P. M.—Soup, broth, vegetables, meat, bread and milk.
- 3:00 P. M.—Crackers, bread and milk.
- 6:00 P. M.—Cereals, soft egg, vegetables, bread, crackers, milk or cocoa.

Under this schedule or formula, the child is fed five times in ten hours and is allowed to go fourteen hours without food.

These are the same writers who say that the new-born babe should have nothing but water the first twenty-four hours after birth.

The stomach does not have sufficient time to empty between these feedings and if it is empty the food has not been taken up from the intestines. Many of these same writers advise nursing the four months old baby only every four hours.

The babe that is fed six times in eleven hours will usually develop a capricious appetite, and refuse to eat many of the foods placed before it. I have seen many examples of undernourished children, who were being fed concentrated foods and fed often, with a very capricious appetite, when placed on three meals a day of plain foods would eat heartily and gain nicely.

I believe that nature intends that the child shall feel a sense of hunger before it is fed, and if it does it will eat any well prepared food.

"A crust of bread is a banquet to a hungry man."

In my practice, I am advising and directing mothers to feed their children only three times a day, after one year of age. Some of them start three feedings a day at nine or ten months. I have several children under two years of age that are eating only two meals a day. They are over-weight, gaining nicely. One started two meals a day when fourteen months old. No "piecing" is done by these children. I do not insist that the babe should be fed only two meals a day, but just mention the possibility of this being done without any bad results.

The recent scientific study and work that has developed the necessity of vitamins in our food will prove to be the greatest contribution to our knowledge of nutrition, and this coincides with nature.

The vitamins have been with us always, but our anesthetic tastes have been developed to such a degree that we must have them removed or destroyed by heat before the food seems palatable.

Scientific milling is removing most of the vitamins from our cereals and the process that removes them the most completely is considered the best mill.

The animals that are directed by nature eat what humans cast aside, and do not develop nutritional disease.

Furthermore, we destroy the growth giving property of our food by heating, as before suggested. While some of the vitamins seem to be able to withstand a considerable degree of heat, it does not seem to me that it is in accordance with nature that any article of food can be heated to a temperature of two hundred and twelve to five hundred degrees and still retain its full food value. There may be vitamins yet undiscovered in the food that are affected by heat.

We cannot cast aside the vitamins from our cereals by a so-called scientific milling process and heat others of our foods to a temperature of two hundred and twelve degrees, or higher, and build up bodies that are capable of withstanding the strains of this active, fast-moving world.

Tissues developed from products that are deficient in these natural foods and which are indispensable to our metabolism cannot functionate as nature intended; it matters not whether it be the tissues of kidney, liver, pancreas, heart, lungs, brain, or organs of reproduction.

The mammary gland developed from such foods cannot and does not furnish a normal supply of food, much less can it do so if the mother consumes foods that are deficient in vitamins. Therefore, I am encouraging mothers to eat many

foods raw, as nature gives them to us. I find that the flow of milk is increased by such a diet. During the last year an abstract in the Archives of Pediatrics reports an increase in the flow of milk when mothers were fed large amounts of raw sauer kraut. Fresh raw foods certainly does increase the flow of milk.

Hopkins states that "young animals if given a well balanced diet of fats, carbohydrates, proteids, minerals, etc., may cease to grow, show evidence of malnutrition and die; all that is necessary is to remove the vitamins".

If the lack of vitamins produces such marked pathological conditions as is shown in scurvy and rickets, much injury must result to other tissues as well and at the same time.

Hopkins reports that "in a boy's school in England—where the students were falling behind in their work, that an investigation of the food disclosed the fact that it was scientifically prepared, and the hygiene was correct; but conditions did not improve until some raw foods containing vitamins were provided, following which the boys immediately showed improvement in their work". They were suffering from incipient scurvy.

It seems that the commercial interests of the country are capitalizing on the appetites of the human family, and all manners of foods are prepared, and scientifically so, placed on the market, advertised in such manner as to appeal to the eye and seasoned to appeal to the taste, often a distorted taste, but which are lacking in those life giving principles that are so essential to a natural growth and development.

It would be humorous, if it was not so serious, to think that we prepare our food scientifically, and thereby build up bodies which prematurely break down in one or more parts, and then destroy the animals that have lived according to nature, appropriating the extracts of their glands in our endeavor to restore our own to a normal condition.

We have access to all the food products that the animals have, and with our present knowledge of the requirements of the human body some method must be developed for preserving the vitamins of our food, intact, as nature provides them, and I sincerely believe this will be accomplished in the not distant future.

We will more quickly reach the ideal for which we are striving if the teachers of nutrition will search out the truth through nature and train the future students to carry on along the same lines, instead of following some of the devious paths of the past and upholding the theories that are so plainly antagonistic to nature's plan

#### A PROPHECY

I have an abiding faith in the men of our profession, men who are laboring ceaselessly for the welfare of humanity. I believe they will search out and disclose the truth in everything that pertains to the physical welfare of the race, and I am confident it will be only a few generations until this will be accomplished; and when it has been accomplished—the average life of man will be 100 years, and many will live 125 years or more, with the mental faculties as alert and the physical powers as well preserved and strong as they are now at sixty or seventy.

"Get but the truth once uttered, and 'tis like  
A star new-born, that drops into its place  
And which, once circling in its placid round,  
Not all the tumult of the earth can shake."

#### Discussion

**Dr. John A. Foote**, Washington, D. C.: As I have to leave early, I would like to say a word or two about Dr. Turner's paper. It was very interesting, and I was particularly intrigued with his description of how the ancient Eastern peoples attributed specific curative value to every drug. Primitive peoples have curious legends that are very similar. According to an ancient Irish legend that explains why we know so little about drugs, there was an old magician and, as in the old Greek legend, he had a daughter who was very fond of her brother. The brother was very brilliant, and the old man, because of this brother's brilliancy, killed him. You see the similarity to the old Greek legend. When the brother was buried, because of the great strength that lay in his bones, the legend relates, out of his grave grew hundreds of herbs, each herb being potent to cure one particular ailment, and you could tell by the "signature" of the herb, what it cured. The daughter of the king knew of these curative properties, and so she went out to the grave and took all these herbs from the grave and tied them in bundles so that when they were dried she would know what each drug was good for. But the old magician because of his jealousy, mixed up all these herbs so that today no physician knows what any particular drug is given for "unless the grace of the Holy Ghost himself should guide him". That is a very ingenious explanation of why we do not know more about drugs. With reference to science, Dr. Gerstley's paper went into the definition of that word. It seems to me that the two discussions were very significant, one as compared with the other. Science, of course, is the observation of a countless number of happenings, and then the classification, you might say, of those happenings, and then the drawing of a conclusion, if a conclusion can be drawn. Thus the scientific law may be elaborated, and when elaborated it means that the same thing always happens, given the same circumstances. Dr. Turner was not talking about science at all; he was talking about empirical statements. Science is the



revelation of the results of exact observation. For instance, you say to a city dwelling man, "Do you think it is going to rain?" He may say, "Yes" in an off-hand manner, or perhaps "I don't think so." That is not science. You do not have to have a laboratory to be a scientist. Take a man on the New England coast who has been out in boats, in fishing fleets for twenty-five or thirty years. You say to him, "Do you think it is going to rain?" He looks up at the sky and sees in what direction the wind is blowing and makes a few other observations and says, "Yes, I think we are going to have a storm before night." He is a scientist. Hundreds of times he has made these observations and he draws conclusions from what he has observed in the past. Another curious thing is the empirical use of remedies. Is that unscientific? I do not think so. How do we come to know what drugs are good for? The priests and medicine men used them at first in the making of charms and amulets. Some unusually intelligent priest noticed, for instance, that when fox-glove was given in a charm to a man that had dropsy, the patient improved. That usually helped him while other things did not help him. After the passage of centuries and countless observation, many things came to be used in that way. The natives of South America learned that chewing cocaine stimulated them. The Orientals knew about opium, etc. And that was science, because it was the summation of exact knowledge based on exact knowledge and handed down by tradition. Old-fashioned people used to give their children bread and molasses. They said that it was good for them. Now we have discovered that black molasses contains more iron than any other organic substance. The old southern mammy used to give her children pot liquor, in other words, the water in which cabbage was boiled. Everybody said that was foolish, but now we know that cabbage contains vitamins. This folk-knowledge was really scientific knowledge. We must conclude then, that such remedies are not unscientific, because they are based on man's observation over a long period of time.

**Dr. S. W. Kelley**, Cleveland, Ohio: I enjoyed every paper I heard and would like to comment on every one, but it is impossible. Dr. Turner's quotation from Rotch reminded me of an older one from Dr. Holmes: "A pair of substantial mammary glands has the advantage over the two hemispheres of the most learned professor's brain, in the art of concocting a nutritious fluid for infants."

**Dr. Joseph Brennemann**, Chicago, Illinois: I think some comments ought to be made on some of the papers and on the meeting in general that have not as yet been made. I confess that I got quite a "kick" out of Dr. Turner's paper. I think it is good "horse sense". I think he got it from the fact that he evidently has gone pretty deeply into veterinary science; and that brings up this point: I have an idea that we would know a little bit more about pediatrics if we knew what the veterinarians do.

The veterinarians know a lot more about some things of that sort than we do, and a good deal of our advancement was received from experience connected with that sort of work. I have always had a feeling that some time I would like to get a fairly good knowledge of veterinary science. I really believe that it would be an excellent thing if we had in connection with our medical school, a course in comparative infant feeding—what they do with calves, pigs and colts. One of the most valuable books that I have in my library is "Bruning and Schwalbe's Allgemeine Pathologie." The book treats of the comparative pathology of animals and human beings. I am reminded of something that they attribute to the great pathological surgeon, Fenger, who was once bemoaning the fact that surgeons did not know more about pathology and he stated that they ought to spend more time on it. However, he said, "If I were going to have an operation on myself, I would probably get a practical surgeon instead of a pathological surgeon." With reference to Dr. Morse's paper—I would not have the audacity to congratulate Dr. Morse; he does not need—etc.

---

## IDEALS IN THE PRACTICE OF MEDICINE\*

---

FRED MOORE, M.D., Des Moines

In anticipation of this occasion with you I have asked a number of my colleagues some specific questions pertaining to their reasons for entering the profession of medicine. I wanted to know what were the things about it that appealed to them in their youth. The answers were fundamentally the same, "Because it offered a field of service". One of my friends said the primary factor in his decision was the opportunity afforded to relieve suffering. Then he related how during a boyhood football game away from home he had suffered a broken leg. Finally the doctor appeared, reduced the fracture and restored him to relative comfort. He has never known the name of his benefactor but carries a definite mental image of him, even of his manner of dress—which has influenced him in the election of his life work and in his daily routine. Another friend who is engaged in eye, ear, nose and throat work told me that in his early youth he worked for an optical supply company. During that period he decided to fit himself for his present work. His early employment gave him the same opportunity for contact with the work of opticians as it did with that of oculists. I asked him why he did not choose the shorter

\*Read before Iowa chapter of Alpha Omega Alpha, Iowa City, Iowa, December 16, 1926.

path and become an optician. His observations had convinced him that his ability to relieve human complaints would be greater as a physician than as an optician. Therefore, he was willing to accept the longer period of training. A third colleague who has attained recognition for his surgical skill said that his admiration for the family physician of his boyhood had influenced him to enter our profession. There are many who have followed in their father's footsteps. They must have been influenced by the life of service which they observed and the goodwill and respect which their fathers enjoyed. A few may have entered solely because of their scientific interests but I believe that most of our medical investigators have been discovered after their admission to medical studies.

Thus we see that the primary considerations with young men entering upon a medical career are identical with the highest ideals of the medical profession—the patient's welfare and respect for our worthy professional elders and antecedents. This is the essence of the oath of Hippocrates and of every other medical creed that has had any tenure of life. As medical students we have come to our profession with ideals of service and personality which are the same as those cherished by our antecedents for generations. I have referred to the answers given me by my colleagues. I would not mislead you and have you believe that their replies were entirely spontaneous and immediately specific. They were not. Too often they expressed some present bewilderment as to why they did enter upon a medical career. These answers were probably due to something of the daily grist that was not satisfactory, or perhaps due to a feeling of unattained ambitions. When these are laid aside and one gets back to the starting point of professional inspiration—one comes upon the ideals of service and respect for those qualified to render service. Life in the practice of medicine is attended with pleasures and dissatisfactions peculiar to it. So it is in every other occupation. It is characteristic of human kind to see the pleasures of the other fellow's calling and fail to appreciate the trials which may prevent its devotee from enjoying its pleasures in fullest measure. The same is true in undergraduate life. The medical student sometimes looks from his time consuming laboratories to the lecture course of the law college and thinks—"easy". The law student contemplates those engaged in art in the same manner while the artist may review the engineer's results with admiration for their practical values. Professional men are

wont to admire the advantages of the business man's life and say—"See what he has accomplished—and he has put no more of energy into his work—perhaps less—than I have into mine". Bring together the representatives of all occupations and determine what is their attitude toward the doctor. In spite of his shortcomings you will find more unanimity of opinion toward him than toward any other personality in the group. Practically all admire him and many do honestly envy him for the service he can render and most of them respect him for his honesty of purpose as expressed alone in the long period of preparation which he has endured.

I was recently impressed with the answer of an eighth grade school child in a test which was designed to bring forth an expression of the independent thought of the children. The particular question was—"What do you wish most to possess when you are fifty years of age?" The one outstanding answer was "Happiness". Other answers served only as examples of many things which are of little value at fifty. Various attainments and possessions were cited. For every one named our own community offered recent examples of individuals at fifty—broken in power, deprived of wealth and crushed in spirit. Where is the doctor in these turbulent times? Is his power gone? If he has worked earnestly it is untouched. Is his wealth gone? No—his wealth lies in his power. Is his spirit crushed? No—his spirit is fed by the springs of service. His own troubles are forgotten in his ministrations to others. Is his opportunity for service gone? No—not while organized society exists. Whence comes this enviable position of the doctor among his fellows? There is but one answer,—his ideals—ideals inherent in youth, developed by education and cultivated in practice.

It is inconceivable that there is a future for the medical student who does not possess the ideal of service. The second requisite for a successful medical career is intellectual honesty. This is a product of education in the truest sense of the word and must be thoroughly cultivated in the medical school. In a very broad generalization the first function of the medical school is to equip the student with a working knowledge of accumulated medical science; second, to train him in intellectual honesty; third, to afford its faculty their inspiration,—the opportunity for research. Honesty of purpose and paucity of knowledge may make him an able comforter for the ignorant. Medical knowledge without intellectual honesty produces the clever charlatan who artfully wears the medical cloak, who infests our



hospitals and societies while honest men blush in mute protest, who bleeds the unsuspecting public at the mutual expense of them and his more deserving fellows, who brings ridicule upon our profession from the truly discriminating public. There is no communion of medical men to which he does not come. The school is not responsible for his presence if the school has ideals. No faculty can discern what its students shall be at fifty or any other age but every faculty bears a tremendous responsibility in this respect. Ideals must be taught and reinforced in order that they may endure when the walls of the alma mater are left behind. The school is the nursery for propagation of new stock. This new stock must be possessed of the seed of service, must early show the sprout of intellectual honesty as well as the growth of scientific reasoning. Without these the school is helpless, the student is hopeless and the art is lost. With these qualities present—the greenhouse is full of promise. The school must provide the soil, the atmosphere and the gardeners. The whole procedure is a hardening process. The faculty of gardeners must proceed with wisdom born of judgment and experience. Each transition must be timed. The effect of each must be predicted with reasonable certainty. Finally—when transplanted to the soil of permanent residence the product must be desirable and enduring. If the result be too highly specialized it may be inadaptably to the new soil and die aborning—admired for its unusual development but wither in a perfect setting because some of the few who could use it—did not happen along.

Our profession is criticised for its specialism. Schools are criticized for producing specialists and sanitarians in place of doctors. Some of our colleagues record with apparent grief the passing of the "Old Doctor" and immediately refute their grief by adding, "He was a noble character; sincere but ignorant. It is well. He is replaced by a scientifically trained man." It is this type who holds out to the able country practitioner the alluring advantages of the laboratories and hospitals and draws him away from a field of service to the centers of population. Submit to yourselves what are our aids in treatment of the sick and what are their sources? Which are the result of observation at the bedside? Which have their sources in the clinical laboratory? What is the fate of the patient who receives treatment guided by the laboratory and without clinical experience? Obviously they are interdependent—and such questions may seem trite. But—without clinical judgment how can one sense the needed laboratory work? Need every patient be

submitted to complete x-ray examinations? Must each have chemical and bacteriological examinations of the gastroenterological tract? Must each have upper respiratory cultures and sputum examinations? Must each have blood and spinal fluid Wassermann and gold colloid tests? He who requires a complete battery of such aids for each of his patients is incapable of interpreting them to his patient's advantage. Sound clinical judgment is built upon a knowledge of pathology and physical diagnosis—reinforced by such laboratory investigations as may be related to the case in hand. Too much of our medical specialism as practiced smacks of the desire to treat, and this treatment is often directed to a single organ or system rather than to the individual. Too many patients experience too much difficulty in obtaining an ordinary complete examination. They are passed from one physician's office to another and finish with such a variety of opinions that no one can reconcile them. The patient's respect for his consultants has not been increased. Meanwhile perhaps his neighbor has consulted an advocate of one of the health cults, received a treatment and enjoyed a spontaneous recovery. It is an outstanding fact that when neighbors compare health experiences their complaints are always just the same and their bills are always different. The expense is of little moment if the patient is satisfied—but couple increased expense with dissatisfaction and you have arrived at the parting of the ways. The advocate of the health cult may be scientifically ignorant but he may also be just as sincere as our old doctor of the past. Who shall decide as to his sincerity? It is my belief that the present situation offers an unusual opportunity for the man in general medicine who is qualified and willing to serve. If our men will come into practice with the ideals of our antecedents, their accumulated clinical teachings plus the science of our modern schools there can be no question as to their future. If the general practitioner shall pass out of the scene as has been predicted, then our profession will suffer in prestige and our people in service.

When our doctor enters the field of practice he must have his personal standards fixed as an anchor for himself. His service must be administered accordingly. He cannot please all. He must please himself first. If his standards are right he will unconsciously disseminate the ideals of his profession to the credit of all. Do the day's work, and tomorrow will care for itself. When the patient appears, give him your best in the way it has been taught—an analytical history, careful examination, consideration of pathology,

diagnosis, appropriate treatment, and finally ascertain the results of treatment. Systematic use of the library cannot be overemphasized. I dare say that too little time is found in the established curriculum for collateral reading and historical study. If so, it should come later. He who possesses an historical knowledge of general medicine and of individual diseases, has a tremendous advantage. It is a neglected field with too many of us. Another omission of greater significance is the too common failure of those engaged in practice to study pathology. Permission for autopsies is generally dependent upon one's interest in the patient. I say "patient" advisedly—for if one cares for "a case at so much per call" he is likely to be refused the privilege of autopsy. There is no greater reflection upon the scientific interest of the practitioner than the small percentage of autopsies. There is no greater stimulus to correct thinking and intellectual honesty than a candid comparison of bedside notes with autopsy findings. It is not sufficient to study pathology alone. It should be shared with colleagues and submitted to frank discussion, for are not all of us prone to see the thing for which we look. These things should constitute the nucleus about which organized medicine revolves. So in practice should we cultivate from within and without.

I have attempted to trace the conception and development of our ideals from the doctor's viewpoint. It is not complete without bridging the gap of years between the medical school and the established practitioner. I referred a moment ago to the function of the school in relation to the student as its primary function. It has a different responsibility to its faculty. It must provide for this group their own peculiar source of inspiration and give them their necessary and deserved opportunity for research. The practitioner should be ever mindful of his obligation to medical education that these opportunities are afforded. Without them improvements in our practice would be slow indeed. Too often the practitioner fails to appreciate the value of research work. He is ready enough to applaud the outstanding achievements of the age. He is too ready to describe the emanations from the laboratory as a "tinkers' chorus", forgetting how much of his time may be spent observing spontaneous recoveries,—tinkering, while marking time. How often do we hear the laboratory worker or faculty attache—enjoying a measure of protection in his position—damn the practitioner, forgetting how much of aimless and useless work is exhibited under the name of re-

search. Only a few days have passed since I heard a pathologist in a discussion of cultures obtained during mastoidectomy—state that he did not consider the culture worth incubating unless it were actually taken by a bacteriologist. These differences are not a part of the fundamentals of medical science. They merely express the personalities of those engaged in it. What we need is a broader comprehension of medical and allied sciences by all who are engaged in its pursuit. Any school that trains its students in the accumulated knowledge of medical science in an atmosphere of intellectual honesty and at the same time provides its faculty with their opportunity for research is fulfilling its mission. Any practitioner who places the interests of his patient first, who follows the proven precepts of his training, who keeps fairly abreast with the efforts of his colleagues' education and supports them in their worthy activities is fulfilling his mission. The school should have the respect and support of its former students. The activities of the practitioner should be worthy the support of his faculty. They are interdependent. The contributions of each should merit the admiration of the other.

---

## SYPHILIS

---

ROBERT EMMET JAMESON, M.D., Davenport

Laymen and women are more and more interested in contagious and infectious diseases. All states have made efforts along various lines to protect people from contagious and infectious diseases. Each state has through its board of health made great advances in methods for the protection of men, women and children and have made efforts to inform the expectant mothers of matters pertaining to methods which will be effective to the mothers and new-born infants for their health and future well-being.

In the past fifty years the socialization of medicine has paralleled the centralization of commerce and the organization of labor. (Dr. Stoeck, United States Government Disease Control.) It is no longer possible for the individual doctor to maintain the isolation and arbitrary powers and responsibilities which were his in primitive times.

The advance of both the art and science of medicine has compelled the development of specialists in various fields of medicine. One by one the greatest of the human race are succumbing to this new strategic method. With the present medical knowledge and the popularizing of that knowledge to the public gives our state



boards of health and our government its best means to successfully combat disease and protect people from said diseases.

Tuberculosis, malaria, yellow fever, etc., the mortality of which has and is falling is not alone due to new conceptions in their treatment, but because of the tremendous force of public knowledge and sentiment, and that being true of these diseases, we know it will be equally true to recognize, prevent and cure syphilis, just as the public is aroused to the necessity in all such diseases.

Syphilis and gonorrhea, perhaps more than any other of the great plagues need the new strategic method, medically we are armed against them, all the paraphernalia of battle is at hand against these two diseases. There is no device known to a cruel and implacable opponent which has not been used against us by the twin scourges. They have crept into our homes, murdered the innocent and helpless. Many a sincere but uninformed man and woman has shuddered to think that these diseases must be, yet have feared to protest against them.

Quietly and dispassionately examined, they can easily be seen to be no more disreputable than other diseases, enemies of the human race. Like murderers who mingle with the crowd upon the very scene of their crime, syphilis and gonorrhea attack their millions, and we have not known them for what they are. For generations all have avoided talking openly and frankly about syphilis and gonorrhea. When these subjects were mentioned it was usually in whispers and usually the information obtained was from the most undesirable sources, or from the well known "specialists" in "private diseases of men and women". These scavengers, vultures and pirates were about as dangerous as the disease itself, and the United States government and state boards of health have taken a hand in the regulation of these pirates.

To look at syphilis and gonorrhea, inspire us to attack these murderers and destroy them. To withdraw the evil and permit the people to face the facts is the first function in a public health movement against all diseases. The simple dignity of truth-telling gives a clear understanding which will yet awaken a sleeping public to the enemy in our midst.

In times past it was said by some that syphilis, gonorrhea and chancroid, the so-called venereal diseases, would never come under public health control because they were secret diseases, therefore the sufferer must be left undisturbed, to spread the disease to others, and to suffer in self-

neglect unless chance information or intuition brings him or her to seek the advice from a conscientious physician.

Under the system of the past, the physician could treat the patient as little or as much as he saw fit, and be accountable to no one for the protection of society against the refractory, careless patient. The patient, on the other hand, could stop his treatment and ignore precautions against the exposure of others as the whim seized him.

Up to the time of the war the American health officer with his brilliant record for conquering such lesser evils, as yellow fever, typhoid fever, smallpox, malaria, diphtheria, etc., felt that venereal diseases were entirely out of his field. The public was not ready to listen to appeals made to them for the regulations necessary to control venereal diseases. They continued to spread and multiply and were not even counted. Society paid for its neglect in wrecked homes, childless marriages, invalidism, blindness and insanity, and still these diseases were not brought under control.

Out of the war along with suffering and destruction has come much good. One benefit to the human race has been a change of their attitude and the creation of an American plan for banishing the vast amount of illness being suffered and death caused by these diseases.

If the American plan for controlling venereal diseases is to live and develop steadily into a better and more effective plan for the future the people must understand it. The United States government and various state boards of health through their public health services taught the dangers of venereal disease to its soldiers and sailors, and knowing of the death and destruction following venereal diseases our government through the various state boards of health has sent warning and made it possible for every man and woman to become informed through lectures, printed matter, exhibits, stereoptican slides and motion pictures. A large per cent of the total number of venereal diseases treated in the army were found to have been contracted before the men entered the army. Venereal diseases have at last been recognized as destructive, preventable, curable.

From present day knowledge of syphilis nothing could more effectively shatter the notion that syphilis is the heritage of the unfavored few. Syphilis is one of the most widespread of the contagious and infectious diseases. Its victims are numbered in millions, not a man lives or a woman, who does not elbow it every day, whose home has not seen its entry and departure, who

may not at any hour have his or her name added to its rolls. To be sure, some are more exposed than others, but never does it become so distant that any of us can sit by and say in snug unconcern this is not my affair. Syphilis is too cunning a craftsman in evil to permit the limitations of his labors to a few.

Physicians, health boards, civic societies and others interested in the subject of venereal diseases and their control, may secure full information by writing to Dr. Henry Albert, Iowa commissioner of health, capitol building, Des Moines. For government printed matter and other information pertaining to venereal disease control, address U. S. Government, department venereal disease control, Washington, D. C.

#### IMPORTANT INFORMATION TO PATIENTS

1. Syphilis is a specific constitutional disease transmitted by heredity and acquired by infection, like smallpox, diphtheria, etc. It is a contagious and infectious disease. Eighty per cent (80 per cent) are infected by sexual intercourse or some perverted practice (this is the acquired form) and if the chancre or sore is on the genital it is known as the genital chancre. If on any other part of the body (lips, breast, etc.) it is known as the extra genital chancre. Chancres may appear on any portion of the body. Twenty per cent (20 per cent) of all people who are infected are infected innocently (from no immoral act of theirs), this is known as the innocently infected.

Hundreds and thousands of grown people, not to mention the hundreds born with syphilis, which we know, have not been infected by any immoral act of theirs. This form of infection may be contracted by kissing, secretions from persons so infected, open sores, dressings, articles used by a syphilitic person, such as towels, drinking cups, razors, pipes, cigars, wearing apparel, tooth brushes, powder puffs, etc. Remember a person infected with syphilis does not necessarily have to be immoral, thousands have been infected innocently. Twenty per cent of our population have venereal disease in the present estimate.

#### STAGES OF SYPHILIS

"A" *Incubation*—Starts from the minute of infections, ends when the chancre appears. During this time the germ of syphilis is being distributed throughout the entire body. The lymph gland becomes enlarged, this state lasts about three weeks when the chancre appears. Chancre appears at point or points of infection.

"B" *First Stage*—Begins when the chancre appears, ends when the chancre disappears, usu-

ally one chancre. It is possible to have as many as seventeen (Fournier has reported seventeen (hard) chancres on the breast of a woman at the same time) or when the secondary rash appears. Chancre may appear in two weeks following infection or it may be two months, usually three weeks.

"C" *Second Stage*—Usually appears in six weeks to three months after the sore is noticed. During this time a rash appears over the body, sore throat, husky voice, alopecia (hair falls out), headache, pains in the joints, worse at night, tired-all-in feeling. They may also have sores on the lips, tongue and other mucous surfaces of the mouth. These are known as mucous patches and are swarming with the germs of syphilis. These are symptoms seen in the second stage of syphilis, the person may, however, have only one or a few of these symptoms or may have all of them or may have none, as this stage may be skipped entirely and the patient only notice symptoms of the third stage.

"D" *Third Stage*—This is the third stage or tertiary stage of syphilis. It may appear in six months following the secondary stage or it may be as long as fifty or more years. It is usually, however, two years when the third or tertiary stage appears after the second stage has appeared. In this stage the patients may have gumma, ulcers, etc., affecting any of the internal organs or the arteries, bones, eyes, or external surfaces, in fact, any tissue or any internal or vital organs may be affected and these lesions are as a rule sooner or later destructive. Syphilis is known as the great imitator. It may imitate any of the known skin diseases or may cause the most misleading symptoms. Many people are under the false impression that any one with syphilis must have ugly sores over the body. This is not true, for thousands have not one external lesion and appear in perfect health, but may have the internal organs affected, and the lesions in this, the tertiary or third stage of syphilis, are usually destructive to the organs or parts so affected.

*Hereditary Syphilis*—Inherited syphilis or born with syphilis. An infant born with syphilis, if in a few days or weeks after birth, may have a rash over the buttocks or over the entire body, or the palms of the hands, or the soles of the feet, may have large or small blisters, or may show evidences of a cold, nose stopped up which may interfere with its breathing, this is known as snuffles. If the child has one or more of the above symptoms it should make the parents or nurses suspicious of inherited syphilis, especially if the rash does not itch or make the child restless. If



the child should reach the age of ten or twelve years, or age of puberty, and then show symptoms of severe headaches, poor and notched teeth (second or permanent teeth), eye symptoms of any kind and undernourished and underdeveloped, these signs should cause the parents to have the child examined by a syphilologist to determine whether the child has a syphilitic infection. (Syphilis—D'Em-Blee syphilis develops without an initial sore. Infants inheriting syphilis is one illustration, women who do not have syphilis, such a woman may develop syphilis becoming pregnant after intercourse with a man who is a syphilitic from the semen; there are said to be other means of contracting syphilis without initial sore.)

#### MISCELLANEOUS

*Re-Infection*—One who has had syphilis and has taken treatment and has been cured. It is possible for him or her to again be infected with syphilis. Cases are on record of persons having been infected with syphilis four different times.

*Immunity*—Immunity to syphilis to man does not exist. Inoculation fails only in those who are suffering from the acquired or hereditary disease and when they have recovered from the infection the disease may be acquired again.

*Clitics Law*—A child begotten and born of an apparently healthy mother cannot infect her. Such a child will infect any other unsyphilitic person. Such a mother may in later years show tertiary symptoms of the disease, having acquired the disease by conception. (That mother is now known to be syphilitic.)

*Profeta's Law*—An apparently healthy child born of a syphilitic mother cannot acquire syphilis from the lesions of the mother (such children are immune for the reason that they themselves are syphilitic.)

#### INSTRUCTIONS TO PARENTS

If your child has one or more of the symptoms mentioned under hereditary syphilis, have the necessary examinations made. If you know the child is syphilitic and a wet nurse is required, it is the duty of the parents, nurse or physician or all of them to secure a wet nurse who is also a syphilitic. Every mother who has a syphilitic child must beyond doubt or question be also infected with syphilis, whether she shows any signs of the disease or not.

Every mother who has had one or more abortions should determine the cause. It may be syphilis. Every man or woman before being married should be examined to determine whether he or she has syphilis, if they have ever

been infected with one or more of the venereal diseases (syphilis-lues, clapp-gonorrhea-running range, or chancroid-soft chancre). Remember that one of these diseases never has or will it be possible for it to run into either of the other diseases. One may have one of the venereal diseases or may have any two of them at the same time and it is also possible for one to have all three at the same time.

#### MODES OF CONTAGION

1. *Direct*—Contact with any open sore of a syphilitic person. Wet nurses are infected by suckling syphilitic infants and children; physicians, mid-wives, nurses in attendance upon women during confinement or operations. In perversions the lesions resulting from infections may be on the anus, rectum, axilla, folds of the breasts, mouth, tonsils, etc. Kissing and sexual intercourse are probably most frequent ways of transmitting infections.

2. *Mediate Contagion*—Some intermediate object serves as a carrier, such as drinking cups, pipes, razors, cigars, cigarettes, chewing tobacco, eating utensils, tooth brushes, powder puffs, dressings, wearing apparel, etc.

3. *Inheritance*—By transmission from one or both parents. If the father only has the disease, and the germs are carried by the semen, the infant and mother both become infected. If the mother only is infected, the chances are that the infant also will be infected. If the mother has a primary sore at birth of the child the child may become infected during birth, it does not have inherited syphilis but syphilis of the acquired type. If the mother has had the disease several years it may be she has a history of previous pregnancies with abortions. The mothers who abort at the early months of pregnancy, usually have had the disease of not long standing, and the chances are that the next pregnancy will be an infant born at term and die soon after birth or is born dead, and later pregnancies will be full term living infants with or without symptoms of the disease. Children born later may not have the disease. The mother who gives birth to a syphilitic infant is herself syphilitic beyond doubt or question.

*Choc-en-Retour—Syphilis by Conception*—When a healthy woman conceives to a syphilitic man the foetus is syphilitic because of the presence of the virus in the semen of the father. The mother becomes infected through the placental circulation, and, though afterwards exhibiting evidence of the disease, she shows no primary sore.

## METHODS OF DETERMINING SYPHILITIC INFECTIONS

1. *Dark Field—Microscopic Examination*—A specimen is taken from the chancre or sore, or from the lymph glands.

2. Wassermann of the blood or spinal fluid.

3. Ophthalmologists examination of the eye grounds.

4. X-ray examinations.

5. Provocative Wassermann blood tests.

6. Examination of the reflexes.

7. Therapeutic tests.

8. Physical.

The dark field examination should be made on all cases which have suspicious sores with or without a history of exposure, regardless of location of the sore. Far too much valuable time is lost waiting for the secondary rash or positive Wassermann. Dr. Fordyce believes it to be criminal negligence if a dark field is not made. Blood Wassermann tests will show in practically 100 per cent of cases if taken during the secondary stage of the disease. It is not to be depended upon during stage of incubation, or in some stages of the tertiary stage. One should become familiar with what to expect and what not to expect from the Wassermann test. Dr. Don M. Griswold, pathologist at the Iowa State University of Medicine, wrote a paper on "What to Expect and What Not to Expect From the Wassermann Test", which appeared in the July, 1924, issue of the Iowa State Medical Journal, which gives one valuable information on the subject.

The Wassermann test of the spinal fluid is usually made on latent cases, or those whom one suspects even after a negative blood test, also necessary, to have in suspected nervous cases, and in final diagnosis following treatment.

*Eye Examinations* should be made on all cases following negative blood and spinal fluid Wassermann tests as a final diagnosis, also in suspected cases where negative blood tests are found. Dr. Hazen advises eye examinations on all cases before final diagnosis of cure is made. The eye examination to be made by an ophthalmologist.

*X-Ray Examinations* for differential diagnosis in lung cases, suspected TBC, and in various bone conditions, heart, blood-vessels, etc. X-ray examinations when made on properly selected cases is one of the most reliable methods of examinations we have.

*The Provocative Test* is made in suspected cases where negative blood Wassermann tests

have been made, also in latent cases of syphilis, a most valuable test in selected cases.

There are several other modifications of the Wassermann test of which we will not speak, Wassermann tests made by reliable laboratories will give the desired information in a greater percentage of cases if we learn the proper interpretation of same.

*Examination of the Reflexes* should be made in all cases who have or are known to have had syphilis in final examination.

*Therapeutic Test*—Drugs are sometimes administered (antisyphilitic) in cases where one suspects syphilis, has negative Wassermanns, or in cases where one hesitates to make a Wassermann test, or in cases who have negative Wassermann test, and sufficient evidence to warrant the suspicion of luetic infection. The therapeutic test is, and has been, in the past, one of the most widely used tests known; it has been used in the past and is used today with many times startling results.

Syphilologists use all the above tests and to the best advantage in many cases who have been the rounds, without results.

## SUMMARY

To take a blood or spinal fluid specimen, sending it to a laboratory, and advising the patient according to the report, is one of gravest evils imposed on one of the most useful means of diagnosing we have. It is a reflection on the ability and understanding of the physician so employing the test, and one of the gravest injustices imposed on the patient. To give a patient a few mercury pills or a bottle of potassium iodide or both, and tell him that it will cure him of syphilis, is practicing medicine without thought of the interests of the patient. Equally true is this in my opinion of the physician who knows only to give a few intravenous injections of mercury or intravenous injections of salvarsan, or advises such and such a course of antisyphilitic treatment.

In the last twenty years more progress has been made than in all the centuries before, due to the fact that the germ of syphilis has been isolated, the Wassermann test more and more perfected, and the discovery and use of the arsenicals. The medical profession have all the means at their command for diagnosing and treating diseases. Do you and I make the best use of them to diagnose and treat syphilis?

## PROGNOSIS OF SYPHILIS

Syphilis is now considered a curable disease, Dr. Hazen makes the statement (in his valuable



book on syphilis) that a person with a syphilitic infection, who takes the proper treatment, follows the instructions of a syphilologist, usually suffers no ill effects from the disease”.

Mothers who have one or more abortions, due to syphilitic infection, may now if properly treated at the proper time under the supervision of a syphilologist, look forward to having a healthy infant born at full time, and they themselves may be cured of syphilis. All persons suffering with syphilis should realize the importance of following all instructions regarding diet, rest, both mental and physical, report regular for treatment and examinations both during and after treatment has been completed. Patients under treatment should not take liquids which contain alcohol in any form, or eat foods containing acids, they should keep the bowels regular, have a dentist examine their teeth, and have the necessary dental work attended to, brush teeth regular twice or more times daily. Syphilologists should encourage patients to ask questions regarding the why and wherefore of their condition, the more patients know of their conditions the more cooperation will the patient give. When a patient understands his condition and realizes it is for his best interests it is but natural he will be more willing to do for himself.

#### MARRIAGE AND SYPHILIS

Patients with syphilis should not marry until they have had a thorough course of treatment, have had necessary Wassermann or other tests made. When all tests have been negative for a period of two or more years the patient may then be advised that he or she may marry. Patients engaged to be married or those expecting to be married, who have had venereal disease should familiarize themselves with the laws of the state regulating venereal diseases.

#### DRUGS USED IN THE TREATMENT OF SYPHILIS AND METHODS USED FOR ADMINISTERING THEM

1. *Arsenical Preparations*—(A) Salvarsan; (B) Neo-salvarsan. Each are known under various trade names, depending upon the country in which they are made. Those made in America by American manufacturers and American methods, are known as arsphenamine or neo-arsphenamine (The American Dermatological Research Laboratories) administered intramuscular, rectal and intravenous.

2. *Sulparsphenamine* — Administered intramuscular.

3. *Mercury* — Administered intra-muscular, intravenous and innunctions.

4. *Potassium and Sodium Iodides*—administered intravenous and oral.

5. *Bismuth*—Administration intramuscular.

There are many other preparations used under various trade names. Personally I am convinced that the American made preparations under American methods, are the most satisfactory and give less reaction, American preparations cost slightly more than some of the other preparations. If we have the best interests of our patients at heart, the best preparations should be used. I was told recently that there was recently being sold a preparation of foreign make which was being smuggled into this country, and the cost of same was twenty cents per ampule. Upon chemical analysis it was found to be an alkali powder, colored.

#### WASSERMANN FAST CASES

Some patients who have been thoroughly treated, and probably have had treatment over a period of one, two or more years and still have a 2, 3 or 4 plus Wassermann are sometimes termed Wassermann fast. In the past three or four years, I have seen several such cases and have had these cases under observation and I am quite convinced that they all have some foci of infection, possibly of the teeth, tonsils or some internal organ or structure of the body, and until such foci of infection are found and removed these cases will continue to have positive Wassermann tests (I hope to have some more definite information along this line in the next year).

#### FINAL SUMMARY

Physicians treating syphilis or other venereal diseases should familiarize themselves with the various stages of each disease, the symptoms and the proper procedure in making examinations in each of the various stages. If their physician does not have the equipment for making said examinations, to employ the services of some one of the reliable laboratories. Use only the best known drugs, and employ the best of technique in administering the drugs. Physicians have a great responsibility when accepting venereal diseased patients, and they should be informed regarding the state law regulating the same, and see that the patient understands such laws.

# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

## Publication Committee

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

## SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII August, 1927 No. 8

## REUNION OF THE THREE MEDICAL SCHOOLS THAT ONCE FLOURISHED IN KEOKUK, FROM 1849 TO 1907

In 1850 three important events occurred in Iowa in relation to medicine, the organization of the Keokuk Medical College, the publication of the Iowa Medical Journal and the organization of the Iowa State Medical Society. Notwithstanding the importance of these events and the influence they were to exercise on the medical profession of Iowa, a few names only appear, and to a considerable extent in all three. Dr. John F. Sanford is first, Dr. Hughes and Dr. McGugin. It appears from the records that the College of Physicians and Surgeons, which was to exert so great an influence on medicine in Iowa, was first organized in La Porte, Indiana, in 1846. After one year it moved to Madison, Wisconsin, as the medical department of the Wisconsin State University in 1847. In 1848-49 the college held its sessions in Rock Island and in 1849-50 in Davenport. The session of 1850-51 was held in Keokuk. Until 1907 Keokuk held a leading influence in the medical profession of Iowa. The changes which were being brought about in medical education closed nearly half of the medical schools in the United States. These changes involved expenditures that private enterprise could not carry, and in Iowa all the schools not supported by the state were forced to close. The State University has now accepted the re-

sponsibilities which were carried by private enterprise for more than sixty years.

As time passes and we get farther away from the things that seemed of small importance at the time, but grow as we measure them with the eyes of experience, so it is now with the men who received their education and right to practice medicine at Keokuk.

We have before us copies of the "Gate City" for June 9-10, containing a registration list of nearly three hundred and we recognize among them many well known names, men who exercise a profound influence on Iowa medicine.

The names of the men who stood forth as the faculty group in 1849-50 have long since become only a tradition and the things they taught have been forgotten, but the spirit of these men survives, and is perpetuated by the men who trace back to the lecture rooms at Keokuk the principles that have grown stronger with the passage of time. It is stated that a reunion will be held next year, we trust there will be, and that these reunions will become a permanent annual feature of good will and good fellowship and to keep alive the traditions of the pioneer medical school of Iowa.

Keokuk, Iowa, July 8, 1927.

D. S. Fairchild, M.D.,  
Editor Iowa State Medical Journal.  
Dear Doctor Fairchild:

During the month of June there was held, in Keokuk, a reunion of the alumni of all the medical schools formerly in Keokuk.

This is rather a unique chapter in the medical history of Iowa. The last class in the Keokuk Medical College—College of Physicians and Surgeons—graduated in 1908, nineteen years ago.

The school was then merged with Drake University Medical School, and later taken over as a part of the University of Iowa.

Notwithstanding the fact that no class has graduated in nineteen years, yet when notice went out "the boys" were coming back there was such a response that a record of alumni attendance in medical schools was established.

A complete list of all living graduates was made, with the address of each one. Out of 970 living graduates there were 244 who came to this reunion, one-fourth of all of them. There were men who had graduated as long ago as 1870 and many representatives of all the classes since.

I wonder what medical school, in active work today, could call back 25 per cent of all its living graduates to an alumni meeting.



The fact that a school which has been out of existence nineteen years can call back 25 per cent is a mark of loyalty that is worth recording.

These graduates are practicing in every state in the Union, in Canada, and the Philippines.

They came to this reunion from states in almost the four borders in the land. They were entertained by the physicians of Keokuk, at the Country Club, and there was a most enthusiastic meeting.

They all looked and seemed prosperous, they talked the language of modern medicine and it is very certain that this alumni body could have debated most any medical problem with representatives of any other medical alumni, which only suggests that it is not always the school, but the character and make-up of the man which may have a big factor in success.

The loyalty of these graduates to the memory of the loyal and faithful faculties which served in the old schools was very great proof that there were real teachers and real men in those days.

Officers were elected and it was enthusiastically voted to meet again in Keokuk next year.

FRANK M. FULLER.

---

It is interesting to study the attitude of institutions, organized for training of candidates for the treatment of the sick, either as physicians or nurses. In times of sickness nothing is too good considered either from the standpoint of the patient or of interested friends. The psychology of sickness cannot be measured from the standpoint of business or any other activity, and yet, the success of medical or surgical undertakings are to be determined fundamentally by the same standards as successful business, with the additional element of mental status. The complex question of thoughtful study of the condition of the sick individual by the same standards that the scientist studies any scientific problem at first, to a large number of people, seems brutal and cold blooded. There is, however, no other way, for purely sympathetic methods do not solve problems, but is absolutely essential in the relatively large proportion of cases. So it is quite essential that scientific methods be employed in the treatment of patients but so associated with appealing psychologic conditions that the patient himself feels that he is more than a machine being repaired under the direction of scientific methods.

The training of fully successful doctors and nurses is a problem for the educational institutions of today. The scientifically trained physician or nurse will find institutional service more

to his liking than general practice and through his training and preference will lead him into institutional work. The one with scientific knowledge and broad sympathy will find a wider field of choice and personal advancement outside. On account of the diversity of sentiment and feeling, the long experience in medical matters has not brought an agreement as to methods of institutional policy, and we are now turning to the material which is offering itself for doctors and nurses, on the one hand the highly technical training of the nurse to meet one class of requirements may place such nurses beyond the reach of the middle class of people and yet the middle class demand the best, and are not satisfied with the poorer and cheaper class of nurse training schools. The same may be said of doctors, and the supply and distribution of doctors.

The uncertainty of the future in a doctor's life and the burdensomeness of the courses in medicine has led some colleges to discourage young men entering these schools unless it can be shown that the young man can meet his financial obligations without taking too much time to earn money to carry on his course. The average or perhaps even a considerable percentage of exceptional students who have devoted much time to earn the money to carry them along and deprived themselves of much sleep and recreation to accomplish "working their way through college" may find themselves broken in health or if in spite of all, they come through with a troublesome debt that they may acquire a sordid view of life and feel justified in resorting to questionable methods of practice.

---

#### MEDICINE IN INDUSTRY

---

The development of industry in quantity at a small margin of profit has led to a demand for efficiency on the part of employees. An important element in efficiency is good health, both physical and mental. It is no longer possible to fill a break in the line of a highly or even in a moderately developed industry by removing a trained employe and substituting a new one, it therefore becomes essential that the employing agency should seek, in the beginning, a physically healthy man and keep him so, hence comes the importance of a medical department, not only to treat surgically the accidents of industry but to advise, direct and treat the incidence of illness which may come to any man.

Dr. C. H. Watson, medical director for the American Telephone and Telegraph Company, states that there are three types of purely medi-

cal work in industry: (a) emergency sickness cases, (b) counsel and advice on sickness problems, (c) diagnostic service. First aid should not be applied to injuries alone, but is just as important in sickness. With a proper understanding on the part of employes and a sympathetic relationship on the part of employers and the medical department much good feeling may be engendered and the sick man restored to health with the least loss of time and expense.

---

### THE PREVENTION OF ACCIDENTS

---

A few weeks ago on crossing the 125th street Ferry in New York and observing the care exercised by the ferry-men in extending and guarding a chain across the landing end of the boat, we were reminded of an accident we witnessed many years ago at Fulton Ferry, when a working man hurrying home from his work in Brooklyn jumped from the unprotected end of the boat and misjudging the distance, or slipping, fell between the end of the boat and the pier and was crushed. Such an accident could not occur now. Today we are reading a proclamation issued by Governor Smith of New York urging owners of automobiles and all classes of motor vehicles to avail themselves of a free inspection as to the condition of mechanical appliances, such as brakes, steering mechanism, etc., between the period from July 18 to August 5. It appears that the State Motor Vehicle Commission feels that many accidents are due to the imperfect working of motor car or automobile mechanism and have advised general inspection of such cars, and to encourage such inspection in the State of New York the commission has arranged with garages and motor repair shops to make such inspection without charge during the period above mentioned, thus to set in operation a safety plan for the future.

---

### REGULATION OF MASSAGE IN NEW YORK CITY

---

The New York Times devoted approvingly a column to a paper published by Dr. S. Dana Hubbard in the Journal of the New York State Medical Society on the importance of regulating the practice of massage through the New York City Department of Health. It is recognized that massage is a valuable means of treatment in certain cases, but the one who applies it should have a proper training in anatomy and physiology; a knowledge of when and how massage should be applied; and a scientific knowledge of the indi-

cations for its employment. Dr. Hubbard believes that the health department should formulate a course of training for those who propose to take up the practice of massage and devote some space to the consideration of its value. He also points out the fact that physicians while appreciating the value of massage are not trained in its application. There are certain schools of medicine which use massage as their chief means of treatment but are not content to employ it under a proper designation but under some high-sounding system of medicine. Another reason for licensing practitioners of massage is that massage used indiscriminately may do harm in certain cases.

---

### DEPLORABLE PUBLICITY

---

A most unfortunate state of affairs has developed at King's County Hospital in Brooklyn, New York. It is alleged that a religious war has broken out between Christian and Jewish interns. The matter became so serious that Mayor Walker felt called upon to make a personal investigation. Criminal charges were made against six Christian interns by three Jewish interns, alleging that a band of twenty men seized, bound, gagged and ducked the three Jewish interns, six of whom were said to have been identified. Rabbi Louis, D. Gross and other Jewish leaders took up the case of the three Jewish interns and criminal charges were entered against the six identified Christian interns, but in consideration of an exchange of letters the criminal charges were dropped. Mayor Walker, on the allegation of anti-Semitic prejudice continued a personal inquiry into the facts. It was claimed that the Jewish interns were discriminated against as to distribution of patients, even at the loss of life; that Jewish interns did not get their fair share of post-mortems and were not permitted to sit at the table with Christians. The question of anti-Semitic prejudice, as a policy, was denied by the hospital authorities, but as to a personal sentiment the hospital was unable to say.

---

### AMENDED CHIROPRACTIC BILL BEFORE THE MASSACHUSETTS LEGISLATURE

---

Section 89. "Chiropractic, or the system, method, or science, commonly known as chiropractic, or the practice of chiropractic, as used in this chapter is defined to be the science of external palpating and adjusting the segments and articulations of the human spinal column, by hand only, and particularly includes the remov-



ing of pressure upon the central nerves radiating from the spine to all parts of the body by the adjustment of its vertebrae by the use of the hand and does not authorize chiropractors to practice obstetrics, so far as the same relates to parturition, nor to administer drugs or perform surgical operations with the use of instruments, and no practitioner of chiropractic shall use the title words or letters, M.D., 'Physician or Surgeon', in connection with his practice or with any advertising."

A bill containing such a section or amendment is objectionable to chiropractors but is accepted by them in the hope of an early amendment to remove restrictions. It is not difficult for a skillful lobbyist to get an innocent looking amendment through the legislature removing all material restrictions. The first step in securing legal recognition for any strange and unreasonable system of medicine is to surround it with such "reasonable" restrictions as to remove all fears of supporting a quack system. Later by skillful manipulation, remove legal restrictions, as was attempted in Iowa when it was thought a favorable moment had arrived.

---

### IS THIS YOUR JOURNAL?

---

The Journal of the Iowa State Medical Society exists for you, a member of this Society. It is *your* Society and *your* Journal. With this basic concept refreshed in your mind let me direct your thoughtful attention to the operation of your Journal. This is for your information, for with this information you are better equipped to do your share in realizing our aims. It is not enough that you pay your dues and in so doing contribute to the financial support of your Journal. You must endorse your Journal. Silence upon the part of the reader may be interpreted as an endorsement, but such silence can never warm the hearts of your Editors or assure our advertisers that their messages have been read. Since one of your Editors is responsible for this article nothing more will be said regarding the endorsement of your Editors in their work. We are not advertisers, so let us speak for them.

First, let me call your attention to the fact that *your* Journal can exist on the present fee basis only because of the advertisements carried. Last year our advertisers carried 78 per cent of the total operating expense of the Journal. If our advertisers cannot be assured of the endorsement of the readers we must necessarily lose the advertiser and supply the financial deficit created, by increasing your dues. An advertiser in paying

for space in our Journal expects that his message will be *read* by the recipient of the Journal. We can supply circulation figures but *you* must furnish reader's facts to such an advertiser.

*Your* part in the maintenance of our advertising income has been intimated, now let me make the statement. A note or card from the readers of this Journal to an advertiser will encourage him in continuing his "ad". They want and expect this endorsement. Will you help your Journal by a card of recognition?

In the last issue, one of our good advertisers asked directly for such an expression. Your Editors are counting on you to answer this advertiser. IS THIS YOUR JOURNAL? Then write them *now*.

---

### ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION

---

Washington, D. C., May 16-20, 1927

#### Registration and Attendance

At the annual session of the American Medical Association in Washington, May 16 to 20, there was a registered attendance of 6,273, meaning at least 10,000 visitors to the convention city.

#### Outstanding Features

Among the outstanding features was an address by the President of the United States, Calvin Coolidge, who conferred high praise on the medical profession for its contribution to the social organization. The President and Mrs. Coolidge also held a special reception for physicians, on the White House lawn.

The departments of the national government, including the army and navy medical departments, the U. S. Public Health Service and many medical bureaus, especially those of the department of the interior, assembled exhibitions for the visiting guests.

The publicity relative to the session in the newspapers of the country was the greatest ever given to an annual meeting of the Association. This is presumably a reflection both of the increasing interest of the public in the progress of medicine and of the cooperation between the American Medical Association and the American press. Practically all of the great press services and newspapers have special representatives in Washington. Arrangements had been made by the headquarters of the American Medical Association for aiding the dissemination of publicity through these channels, both previous to and during the session.

#### House of Delegates

The following statement concerning the proceedings of the House of Delegates is not in any sense complete. A fuller outline has already appeared in

The Journal, and the complete record will be printed in the official "proceedings".

At the first meeting of the House of Delegates, May 16, the speaker, Dr. F. C. Warnhuis, urged continued attention to the problems of nursing education and nursing service in the United States. He suggested an attempt to solve the question of the requirements, qualifications and standards for a capable, competent surgeon and a means to aid the public in making such an identification. He also urged state licensure and special hospital legislation as a means for protecting the public against poor and incompetent institutions.

The president of the association, Dr. Wendell C. Phillips, urged continuous attention to the education of the public in matters of health. He suggested a proper system of censorship to safeguard medical publicity. He again recommended consideration of the restrictions placed on physicians in the prescribing of alcoholic liquors.

The president-elect, Dr. Jabez N. Jackson, urged new attention to the problems of medical ethics, and the preparation of a manual which would make clear both to the profession and to the public the intent of the "Principles of Medical Ethics."

The president of the association appointed a committee, consisting of Drs. Ray Lyman Wilbur, Rock Sleyster, G. E. Follansbee, Harlow Brooks and William Allen Pusey to act on public responsibility, having to do with the relationship of the medical profession to the public.

On recommendation of the judicial council, the opinion was adopted that all articles of an educational nature on medical or health subjects intended for the lay press or lay audiences should give expression to the consensus of opinion of the medical profession rather than to personal views, and that such articles should appear preferably under the auspices of the American Medical Association or of one of its component county societies or constituent state associations.

### Report on Medical Education

In considering the report of the Council on Medical Education and Hospitals, the House of Delegates adopted the report of its reference committee. This committee considered as overoptimistic the views of the Council that the present medical schools are adequate to supply places for those wishing to enter a medical school. The reference committee believed that the Council on Medical Education might devote more attention to the problems of the supply of physicians and the question of medical care in rural districts, to the preparation of a statement on the defects in the present situation and to similar subjects.

The reference committee considered it necessary that the present curriculum be reduced materially and that any consideration of a new curriculum should give special attention to the training of general practitioners, with brief courses in the more important specialties. The recent decision of the

Council to recognize as suitable for internship only hospitals in which there is a minimum percentage of necropsies was approved and recommended.

### Investigation of Heroin

The reference committee on legislation and public relation requested the board of trustees of the American Medical Association to have another investigation of the use of heroin made by the Council on Pharmacy and Chemistry in conjunction with some of the scientific sections.

### Evaluation of Remedies

It was recommended that the association condemn as unwise and futile any attempt to evaluate a therapeutic agent by legislative fiat, referendum, popular vote or any similar method. The conclusion was adopted that such evaluation can be made only by the investigation and decision of experts.

### Disaster Relief

A consideration of the report of the committee on disaster relief resulted in the adoption of a recommendation that the American Medical Association urge constituent associations and component societies that have not already established disaster relief committees to do so as soon as possible.

### Mortality Statistics

It was urged by the adoption of a report of the reference committee on hygiene and public health that the attention of the United States Census Bureau be called to the impossibility of comparison of statements on maternal mortality of the various nations and that the bureau be urged to secure a strictly uniform definition of maternal mortality by the bureaus of vital statistics of various nations.

### Cosmetics

A resolution urging Congress to enact a law to control the manufacture, distribution, sale and commercial use of toilet preparations for preserving and enhancing personal beauty was referred to the board of trustees for action.

### Education of Surgeons

The reference committee on the speaker's address commended the section having to do with the duty of the American Medical Association to standardize and elevate the practice of medicine and surgery within and without hospitals through its own organization, but not through legislative or other agencies.

### Appointment of Delegates

The reference committee urged that state societies appoint delegates in time to permit the speaker of the House of Delegates to announce the reference committees thirty days in advance of the session, so that these committees might give adequate attention to the various reports of officers and councils before the time of the session.



### Health Conferences

The importance of health conferences was recognized and attempts to reduce the duplication of efforts in various fields were encouraged.

### Contract Practice

The report of the Judicial Council of the American Medical Association to the effect that there were both ethical and unethical contracts possible, and that each contract must be judged on its own merits was approved by the committee and adopted by the House of Delegates.

### Charges for Services to Insurance and Indemnity Companies

A resolution to the effect that physicians were not under any obligation to provide information to insurance or indemnity companies unless paid the usual fees charged for similar services to private patients was approved and adopted by the House of Delegates.

### Place of Next Annual Meeting

The board of trustees was asked to investigate places for holding the next annual session and to present its approval of two or more cities which, on investigation, have been found to possess ample facilities. The board of trustees has authority to change the place of holding the session if for any reason it is deemed advisable.

### Income Tax Deductions

A resolution requesting the promotion of an amendment to the revenue bill relating to income tax, which gives the individual a right to deduct from his income tax the expenses of medical treatment for himself and family was referred to the board of trustees, with the suggestion that they in turn transmit it to constituent state societies for action.

### Nursing Education

Reports of the various committees on nursing education were received by the House of Delegates, and it was recommended that the American Medical Association give support in the work of the committee on grading of nursing schools and share in its financial program. The board of trustees appropriated the sum of \$5,000 for one year toward this end.

### The Physicians' Home

A special committee reported on the need of a physicians' home. The committee recommended that the secretary of the association be requested to secure full information in regard to what is now being done by the profession for aged and incapacitated physicians, in various states and cities, so that other states or component societies may take measures to afford relief for dependent, worthy physicians, their widows and their orphans who may be in need. It was recommended that the secretary make a report on this matter at the next annual meeting. The committee was convinced that the

need for a national home is not sufficient to warrant the American Medical Association in establishing, managing and sustaining a home.

### Collaboration with Health Officers

Collaboration between physicians and health officers was urged as the only method of meeting the public health situation for the good of the profession and the public.

### Trachoma Among Indians

The American Medical Association was urged to continue its affiliations with all the activities of the United States Government of the work being done by the national committee for the prevention of blindness for the elimination of trachoma among Indians.

### Legislation for Coordinating Government Health Activities

The House of Delegates reaffirmed its approval in principle of the Parker bill, coordinating the health activities of the federal government under the direction of the United States Public Health Service. It also adopted the report of the reference committee recommending approval of the Ransdall bill, appropriating \$10,000,000 to establish a national institute of health under the control of the surgeon-general of the United States Public Health Service.

### Disabled Emergency Medical Officers

The House of Delegates reaffirmed its favorable action of 1922, requesting the passage of the Bursum bill, which relates to the retirement of disabled emergency army medical officers on a parity with all other classes of disabled officers of the World War now on the retired list.

### Medicinal Liquor

The report of the reference committee of the House of Delegates to the effect that hereafter the House of Delegates shall not pass any resolution pertaining to the therapeutic value of anything and that no committee report empowering any such resolution shall hereafter be presented until it has been considered by the Council on Scientific Assembly and the Council on Pharmacy and Chemistry was adopted. Recommendation was made that the special committee on alcoholic liquors be continued and be directed to cooperate in preparing a bill to be presented to Congress correcting the unfortunate provision of the Volstead Act limiting the amount of alcohol used, and providing such regulations as will permit doctors to prescribe whatever amounts of alcoholic liquors may be needed for their patients, and subject to such reasonable restriction as may be thought wise and best after a conference with the head of the prohibition department.

It was also urged that the American Medical Association declare its adherence to the principle that legislative bodies composed of laymen should not enact restrictive laws regulating the administration of any therapeutic agent by physicians legally qualified to practice medicine.

A supplementary report of the judicial council recommended that "Every resolution presented relating to the alcohol question shall be referred to the board of trustees for investigation." The recommendation was adopted by the House of Delegates.

#### **Caustic Poisons**

The House of Delegates approved the resolution extending to members of Congress the thanks of the American Medical Association for passing the Caustic Poison Act in 1927.

#### **Form Letters on Periodical Physical Examination**

A resolution asking the board of trustees to prepare approved forms of letters or literature which may be sent out by county medical societies to the public to promote the value of periodic health examinations and information that the examinations can be made and records kept by qualified physicians who are members of the American Medical Association, in this manner helping to circumvent the harmful advertising activities of commercial agencies dealing with periodic health examinations, was endorsed by the reference committee and adopted by the House of Delegates.

#### **Contraception**

A resolution recommending the alteration of existing laws, wherever necessary, so that physicians may legally give contraceptive information to their patients in the regular course of practice was referred to the board of trustees of the association.

#### **Health Hazards in Industry**

The resolution petitioning Congress to make possible an increase in the personnel and resources of the United States Public Health Service in order that the service may extend its activities in the field of industrial hygiene was referred to the board of trustees.

#### **Amendments to the By-Laws**

Notices of proposed amendments to the by-laws: (1) defining the powers of the judicial council; (2) defining the legislative powers of the association and the right of the House of Delegates to expel members or Fellows on recommendation of the judicial council; (3) a resolution changing the members of the council on medical education and hospitals was presented and must lie over to 1928 for action.

#### **Woman's Auxiliary**

A motion that the House of Delegates request the board of trustees to appoint a liaison committee between the American Medical Association and the woman's auxiliary was adopted.

#### **Election of Officers**

In the election of officers, Dr. William S. Thayer of Baltimore was elected president of the association; Dr. Charles A. Elliott of Chicago, vice-president; Drs. Olin West, secretary, and Austin A. Hayden, treasurer, were reelected, as were also the

speaker, Dr. Frederick C. Warnshuis of Grand Rapids, Michigan, and vice-speaker, Dr. Allen H. Bunce of Atlanta, and the trustees, Drs. Edward B. Heckel of Pittsburgh and Rock Sleyster of Wauwatosa, Wisconsin.

The president, Dr. Jabez N. Jackson, made the following nominations to appointments on the various councils: For the judicial council, Dr. Donald McCrae, Jr., Council Bluffs, Iowa, and Dr. Frank Cregor of Indianapolis, to succeed Dr. Thayer; for the Council on Medical Education and Hospitals, Dr. Emmett P. North, St. Louis; for the Council on Scientific Assembly, Dr. Frank H. Lahey of Boston. These nominations were confirmed.

#### **The Scientific Sections**

More than three hundred manuscripts were read in the sixteen scientific sections of the association, covering many medical subjects. A complete list of the papers read with the names of the persons discussing them appears in *The Journal of the American Medical Association* for June 11, 1927, beginning on page 1896.

---

#### **IOWA STATE FAIR—BABY HEALTH SCORE CARD**

---

As a means towards the development of better babies, the Iowa State Fair has sponsored a baby health contest for the past sixteen years. Each year the examinations have been made more thorough and additions made to the equipment to keep pace with modern practice. All examinations are conducted by doctors who are specialists in pediatrics. For the most part this examining staff has been recruited from Iowa locations. However, there has usually been at least one pediatrician from outside the state who has served as a referee or consultant. The purpose of the Clinic or Contest is to establish a contact with as many babies as may be possible through the contest idea and having secured the contact, to point out all correctable defects in the infant. The policies and aims of the contest are becoming more and more educational rather than a beauty or even a health competition.

A score card was made for this purpose which was adopted by the American Medical Association in 1917. This year we obtained permission to print our own score card and make any changes or additions we wished. (A reproduction of this score card printed herewith.) Our main reason for printing the cards ourselves was to make a duplicate folder permitting a carbon copy. An exact copy of the card has always been made and sent out to the contestants by a corps of stenographers. By this method the carbon copy of the score card can be mailed out the day the contest closes. The mental examination has been brought up to date, and is now based on the mental test of Gesell of Yale. A few minor changes and additions have been made on the other sections. More variations from the



BABY HEALTH SCORE CARD—IOWA STATE FAIR

Printed by permission of The American Medical Association

HISTORY

BIRTH: Carried.....Mo. Condition at birth.....Weighed.....lbs.....ozs.  
Which child.....Time after becoming pregnant physician was consulted.....Mo.  
Birth registered.....Where?.....  
FEEDING: Breast fed.....Mo. Bottle fed at.....Mo. Breast and bottle fed.....Mo. Fed every.....Hrs.  
Formulae.....Present foods: Milk.....Cereal.....Eggs.....Scraped beef.....Vegetables.....  
HYGIENE: Sleeps alone.....Bed time.....Naps.....Windows open.....Daily sunning.....  
Chair-broken at.....Mo. Controlled urine, days at.....Mo. Night.....Mo.

I. MENTAL Examiner.....  
10. GENERAL MENTALITY: Retardation .5 1. 1.5 2. 2.5 Precocity .5 1. Sensory defects .5 Faults in perceiving .5 Concentrating .5 Expressing .5 Reasoning .5 Understanding .5 Imaging .5 Learning .5 Imitating .5 Defective or abnormal play tendencies .5 Linguistic peculiarities .5 Over-spontaneity .5 Over-inhibitiveness .5  
3. MOTOR ASPECTS: Inability to hold head erect, to sit, to stand, to walk, or to run at proper age .5 Faults in reaching .2 Pulling .2 Pushing .2 Stooping .2 Climbing .2 Grasping .2 Opposing thumb .2 Mono-dexterity .2 Tracing .2 Throwing .2 Catching .2 Other incoordination, weakness or mis-use of muscles .3  
2. SOCIAL BEHAVIOR: Lack of cooperation with parent .5 or 1. Faulty attitudes and acts with regard to other persons .5 Undesirable personal-social habits .5  
1. EMOTIONAL ASPECTS: Over-timidity .2 Brazenness .2 Apathy .2 Irritability .2 Other emotional peculiarities 2.  
1. PERSONALITY: Inferior presence and facial expression .3 Over-passivity .2 Over-aggressiveness .2 Unattractive traits and habits .3  
3. ADDITIONAL TENDENCIES

20. Total Mental Score

II. EYE, EAR, NOSE, AND THROAT Examiner.....  
5. EYES: Abnormal size .2 Abnormal position .2 Crossing .6 Lids abnormal .5 Inflamed 1. Conjunctiva inflamed .5 Keratitis 1. Discharge 1.  
4. EARS: Abnormal size .2 Abnormal shape .2 Abnormal position .2 Inflamed ear-drums 1. Pus discharge 2. Wax .4  
2. NOSE: Abnormal shape .5 Narrow nostrils .5 Discharge 1.  
4. THROAT: Inflammation .5 Tonsils enlarged .5 Tonsils diseased 2. Adenoids diseased 1.

15. Total Eye, Ear, Nose and Throat Score

III. ORAL AND DENTAL Examiner.....  
4.5 MOUTH: Mouth: Habitually held open .5 Offensive breath .5 Lips: Pale .4 Fissured .3 Underdeveloped .5 Tongue: Protruding .5 Coated .3 Gums: Abnormal .5 Palate: Abnormal 1.  
5.5 TEETH: Teething: Slightly delayed .2 Seriously 1. Teeth: Discolored .3 Decayed 1. Enamel defects 1. Irregular .5 Malocclusion 1.5

10. Total Oral and Dental Score

IV. PHYSICAL Examiner.....  
4. HEAD: Head: Abnormal shape .3 Abnormal size .5 Fontanelle abnormal size .5 Hair: Scanty .2 Brittle .2 Bald spots .5 Scalp: Rough .1 Scaling .2 Diseased .5 Features: Irregular .5 Receding chin .5  
3. NECK: Lymphatic glands: Palpable .5 Seriously enlarged 1.5 Scarred .5 Thyroid gland: Enlarged .5  
9. CHEST: Chest: Abnormal shape (pigeon, barrel, funnel) .5 Asymmetrical .5 Ribs: Beaded .5 Flaring .5 Thymus: Widened 1. Heart: Irregular .5 Enlarged 2. Murmur .5 Lungs: Dull 2. Rales 1.  
1.5 BACK: Postural curvature 1. Winged Scapulae .5  
5. ABDOMEN: Abdomen: Enlarged .5 Distended .5 Liver: Enlarged .5 Spleen: Enlarged .5 Hernia: Navel 1. Groin 2.  
1.5 ARMS: Arms: Asymmetrical .2 Epiphysis enlarged .5 Fingers: Clubbed .5 Nails: Defective .2 Discolored .1  
3. GENITALIA: Male: Adherent prepuce .5 Phimosis .5 Inflammation .5 Testicle undescended 1. Hydrocele .5 Female: Congenital defects .5 Inflammation of vagina .5 Inflammation of urethra .5 Vaginal discharge 1.5  
2.5 LEGS AND FEET: Legs: Asymmetrical .2 Epiphysis enlarged .5 Bowed .5 Knock knees .5 Feet: Pronation flat .5 Nails: Defective .2 Discolored .1  
1.5 SKIN: Pale .5 Rough .3 Hairy .2 Eruption .3 Bites .1 Birth marks or moles .1  
2. POSTURE AND GAIT: Posture: Fatigue .5 Spasticity .5 Gait: Abnormal .5 Pigeon-toed .5  
4. NUTRITION: Flabby muscles 1. Diminished skin turgor 1. Malnutrition 1. Adiposity 1.  
4. NERVES AND MUSCLES: Exaggerated reflexes .5 Chvostek sign .5 Paralysis 2. Incoordination 1.  
1. DEPORTMENT: Bad temper .3 Lack of self-control .2 Unmanageable .5

42. Total Physical Score

V. MEASUREMENTS Examiner.....  
1. Circumference of head - - - - - Ins. ....  
1. Circumference of chest (at nipple line) - - - - - Ins. ....  
1. Circumference of abdomen (at umbilical line, standing) - - - - - Ins. ....  
.5 Diameter of chest, lateral (calipers at level of nipple line) - - - - - Ins. ....  
.5 Diameter of chest, antero-posterior (calipers at level of nipple line) - - - - - Ins. ....  
.5 Length of arm (tip of acromion process to tip of middle finger) - - - - - Ins. ....  
.5 Length of leg (greater trochanter to sole of foot) - - - - - Ins. ....  
1. (Average height for age is Ins.) Height - - - - - Ins. ....  
2. (Average weight for height is Lbs.) Weight - - - - - Lbs. ....

8. Total Measurement Score

Conditions that govern scoring of measurements:  
Do not penalize over height for age.  
Allow 1 inch under average height before penalizing.  
Compare the weight and all measurements with height.  
Allow 1 pound over or under average weight before penalizing.  
Allow ½ inch before penalizing for all measurements of head, body, and limbs.  
Penalty in the right hand column must not exceed the score in the left hand column.

VI. CONSULTANT  
.4 No vaccination for Small-pox .2 Diphtheria .2  
.46 Other abnormal conditions, or defects

5. Total Consultant Score  
Grand Total Score

tables of averages has been allowed in the weight and measurement section. We are now using the Byrd Baldwin table of average weight and measurements based on 37,000 Iowa children.

We have created a section for a consultant who may find occasion to penalize for some condition not regularly listed. A small penalty has also been attached to not being vaccinated. This has been added for its educational value.

Constructive criticism from any reader of the Journal will be appreciated. The State Fair Board wants this contest to be of state wide value for improvement of our babies.

I wish to acknowledge the assistance of Mrs. S. E. Lincoln, superintendent of the contest; Dr. R. H. Sylvester of the mental section; Dr. H. J. McCoy of the eye, ear, nose and throat section; Dr. R. W. Noland of the dental section, and Mr. Frank Harris, assistant secretary of the State Fair Board.

James E. Dyson, M.D.,  
Physical Director.

### MEDICAL SOCIETY OF THE MISSOURI VALLEY PRELIMINARY PROGRAM, DES MOINES, IOWA

#### September 14, 1927—Morning Session

9:30: Recent Developments in Muscle Physiology—H. W. Dahl, M.D., Des Moines, Iowa.

10:00: Clinical Signs of Peripheral Nerve Injury—Lewis J. Pollock, M.D., professor and chairman of the division of neurology and psychiatry, Northwestern University College of Medicine, Chicago, Illinois.

10:30: (Title not announced)—Walter L. Biering, M.D., Des Moines, Iowa.

11:00: Facts and Fancies on Present Day Orthotherapy—A. J. Carlson, M.D., professor of physiology, Rush Medical College, Chicago, Illinois.

#### Afternoon Session

2:00: Clinic—Lewis J. Pollock, M.D., professor and chairman of the division of neurology and psychiatry, Northwestern University College of Medicine, Chicago, Illinois.

3:00: Granuloma Coccidioides with Report of a Case—C. C. Tomlinson, M.D., assistant professor of dermatology and syphilology, University of Nebraska College of Medicine, Omaha, Nebraska. Paul Bancroft, Fellow department of pathology, University of Nebraska College of Medicine, Omaha, Nebraska.

3:30: Study of a Case of Nephritis—A. D. Dunn, M.D., director of department of experimental medicine, University of Nebraska College of Medicine, Omaha, Nebraska.

4:00: Foreign Bodies in the Esophagus and Respiratory Passages—Bernard M. Kully, M.D., instructor in otolaryngology and anatomy, Creighton University College of Medicine, Omaha, Nebraska.

4:30: Surgical Treatment of Carcinoma of the Breast and Acute Gangrenous Perforated Appendicitis—Illustrated by motion pictures—Caryl Potter, M.D., St. Joseph, Missouri.

#### Evening

8:15: Title unannounced—W. T. Bovie, M.D., professor of biophysics, Harvard University, College of Medicine, Boston, Massachusetts.

9:30: "Tigers"—Lantern Slide Talk on Big Game Hunting in Indo-China and India—Richard L. Sutton, M.D., professor of dermatology, University of Kansas College of Medicine, Kansas City, Kansas.

#### September 15, 1927

9:00: The Problem of Ureteral Obstruction—Nelse F. Ockerblad, M.D., associate professor of clinical urology, University of Kansas College of Medicine, Kansas City, Kansas.

9:30: Consideration of Some Border-line Problems in Urology—Herman L. Kretschmer, M.D., professor of urology, Rush Medical College, Chicago, Illinois.

10:00: The Diagnosis of Modern Treatment of Trigeminal Neuralgia Major—Wm. T. Coughlin, M.D., professor of surgery and director of department, University of St. Louis, School of Medicine, St. Louis, Missouri.

10:30: Etiology and Mechanism and Treatment of Hypertension—Ralph H. Major, M.D., professor of medicine, University of Kansas College of Medicine, Kansas City, Kansas.

11:00: (Title written for)—W. T. Bovie, M.D., professor of biophysics, Harvard University College of Medicine, Boston, Massachusetts.

#### Afternoon Session

2:00: Clinic—Herman L. Kretschmer, M.D., professor of urology, Rush Medical College, Chicago, Illinois.

3:00: Perverted Physiology as a Factor in Diagnosis of Diseases of the Biliary Tract—C. C. Nesselrode, M.D., associate professor of surgery, University of Kansas College of Medicine, Kansas City, Kansas.

3:30: The Control of Ciliary Activities with Clinical Implication—James F. McDonald, M.D., professor of anatomy, Creighton University College of Medicine, Omaha, Nebraska.

4:00: Clinic—Wm. T. Coughlin, M.D., professor of Surgery and director of department, University of St. Louis School of Medicine, St. Louis, Missouri.

#### Evening

6:30: Dinner—Presidential Address.

#### September 16, 1927

9:00: Title unannounced—David P. Barr, M.D., professor of medicine, Washington University, St. Louis, Missouri.

9:30: Practical Application of Forceps, Illustrated on the manakin—F. B. Langdon, M.D., Des Moines, Iowa.



10:00: Foreign Protein Treatment in Obstetrics and Gynecology—E. D. Plass, M.D., professor and head of department of gynecology and obstetrics, University of Iowa College of Medicine, Iowa City, Iowa.

10:30: The Duties of Practitioner in Prevention of Spinal Deformities—Arthur Steindler, M.D., professor and head of department of orthopedics, University of Iowa College of Medicine, Iowa City, Iowa.

11:00: A Typical Chronic Glomerular Nephritis—Fred A. Smith, M.D., professor and head of department of theory and practice of medicine, University of Iowa, College of Medicine, Iowa City, Iowa.

### MEDICAL SPECIALISM IN THE DAYS OF HERODOTUS (484-425 B. C.)

According to Wells<sup>1</sup> Herodotus was born in 484 B. C., and thus belongs in the fullest sense to the "great" period of Greek history. He was among the first writers of critical and intelligent history, and is sometimes referred to as the Father of History.

Obviously, the condition of human beliefs and opinions fall within the field of history as indicating contemporary thought, and it is therefore interesting to direct attention to a recent edition of Herodotus<sup>2</sup> in which he comments on medical specialism during his period, as follows:

"The practice of medicine is so divided among them, that each physician is a healer of one disease and no more. All the country is full of physicians, some of the eye, some of the teeth, some of what pertains to the belly, and some of the hidden diseases."

The first report of the Commission on Medical Education contains an analysis of specialization in medical practice in the United States in 1925, showing that there are 15,417 physicians limiting their practice to a specialty in this country. If this is taken as an indication of medical progress, we have not advanced a great deal since the days of the ancient Greeks.

Walter L. Bierring.

### 164,002 PHYSICIANS IN NEW AMERICAN MEDICAL DIRECTORY

For more than twenty years the American Medical Association has been publishing a directory of the medical profession. Ten editions have appeared, the last one (1927) being just off the press.

The first edition (1906) contained 128,171 names of physicians in the United States, its dependencies and Canada. The new tenth edition includes 164,002 names. There is an increase of 2,644 over the previous edition. If the directory were merely a list of

names and addresses of physicians it would not have great significance. That information is valuable, but of far greater value is the fact that the directory gives proof of the right of each physician listed to practice medicine—namely, time and place of graduation and year of license. In addition, society membership, specialty and office hours are included. Capital letters indicate those who are members of their county medical society, and a special symbol follows the names of those who are Fellows of the American Medical Association.

The information concerning hospitals and sanitariums of the United States is another valuable and extensive feature. Descriptive data appears following the names of 7,816 hospitals and sanitariums such as type of patients handled, capacity, and name of superintendent or director.

The list of physicians in each state is preceded by a digest of the laws governing medical practice in that state; members of licensing board; state board of health; names of city, county and district health officers; officers of constituent state associations and component county and district medical societies. The book, in short, is one vast source of reliable data concerning the personnel of the medical profession and the institutions and activities closely related to it. It contains 2,575 pages and is sold for \$15. Published by the American Medical Association, 535 North Dearborn street, Chicago.

### VACANCIES IN VETERANS' HOSPITALS

#### Physiotherapy and Occupational Therapy Aides Urgently Needed

The United States Civil Service Commission states that a number of hospitals of the Veterans' Bureau are sorely in need of occupational therapy aides in arts and crafts, agriculture, and trades and industrial occupations, and also physiotherapy aides, pupil aides, and assistants. These workers are needed in considerable numbers in connection with the rehabilitation of disabled soldiers and sailors.

It is stated that examinations for these positions are now open. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or from the secretary of the United States Civil Service Board at the post office in any city.

### TECHNICIANS IN BACTERIOLOGY AND ROENTGENOLOGY NEEDED

Hospitals of the United States Veterans' Bureau and the United States Public Health Service throughout the country are urgently in need of technicians in bacteriology and roentgenology, as described in the announcement enclosed herewith.

The commission requests that you assist it in the effort to bring this need to the attention of qualified persons by posting the announcement in a conspicuous place and giving publicity to it in any other

1. Outline of History—H. G. Wells, 1921.

2. Herodotus—with an English translation by A. D. Godley, four volumes, William Heinemann, London.

manner, including direct information to qualified persons. Additional copies of the announcement will be sent to you upon request, for distribution, or the commission will be glad to send them direct to any persons whose names and addresses you may furnish.

Your cooperation in this recruiting effort will be appreciated.

By direction of the commission:

John T. Doyle, Secretary.

United States Civil Service Commission.

**UNITED STATES PUBLIC HEALTH SERVICE,  
DIVISION OF VENEREAL DISEASES,  
WASHINGTON**

**Abstract From Recent Medical and Public Health  
Papers**

**LABORATORY RESEARCH**

**A Consideration of Arsphenamine and Certain Other  
Organic Arsenic Compounds in the Treatment  
of Syphilis**

Roth summarizes:

1. There is a well-marked individual variation in the susceptibility of animals to both arsphenamine and neoarsphenamine.
2. Neoarsphenamine is so unlike arsphenamine in its biological behavior that it should not be regarded as arsphenamine in a form convenient for administration.
3. Acid solutions of arsphenamine are at least two to four times as toxic as properly alkalinized solutions, the toxicity increasing directly with the concentration.
4. The toxicity of properly alkalinized solutions of arsphenamine is slightly less toxic as a 0.5 per cent than as a 2 per cent solution.
5. The Ehrlich method of alkalinizing arsphenamine, in which the monosodium salt is formed, produces a more toxic solution than the present method used in the United States, in which the disodium salt is formed.
6. The use of impure sodium hydroxide should be avoided in making arsphenamine solutions.
7. Increasing the rate of injection of properly alkalinized arsphenamine greatly increases its toxicity.
8. Properly alkalinized arsphenamine solutions in many cases are more highly toxic immediately after their preparation than after the lapse of about twenty minutes.
9. Shaking alkaline aqueous solutions of arsphenamine and aqueous solutions of neoarsphenamine in the presence of air increases their toxicity markedly.
10. Neoarsphenamine is a relatively unstable compound in sealed ampule and after an indefinite period may show changes in (1) color, (2) mo-

bility in ampule, (3) solubility, (4) toxicity, and (5) odor.

11. Difficulty or incompletely soluble preparations of neoarsphenamine may be highly toxic and should not be used clinically.

12. In some cases neoarsphenamine in ampule may be rendered insoluble by incubation at 37° C. for about a year.

The margin of safety between the therapeutic and lethal dose of arsphenamine is extremely narrow and this makes it necessary to regard arsphenamine as a potentially dangerous therapeutic agent, even though every precaution is taken to handle it properly. (George B. Roth, public health reports, August 19, 1921.)

**Experimental Observations upon the Effect of  
Cholesteremia on the Results of the  
Wassermann Test**

Craig and Williams experiment to find whether amounts of cholesterin in the blood will produce a positive Wassermann as is claimed by several investigators. Rabbits used for the experiment were fed cholesterin for eighteen days. There was a persistently negative Wassermann. Authors conclude that there is no relationship between the cholesterin content of the blood serum of rabbits and the results of the Wassermann test. References. (Charles F. Craig and William C. Williams, American Journal of Syphilis, July, 1921.)

**PREVENTION AND TREATMENT OF  
VENEREAL DISEASES**

England has considered the question of venereal diseases for many years. The results obtained by the ministry of health through these years of experience warrant the continuance of such activities. A recent circular of the Ministry, addressed to local authorities urges the continuance of these principles. The educational, legal, recreational, and medical measures must go on.

In the medical field, various problems have arisen, particularly during and since the war. In a few areas, ablution or disinfecting centers have been instituted to provide for the disinfection by skilled attendants, of persons who have exposed themselves to the risk of infection. In England during the war, an interdepartmental committee appointed by the Minister of Health came to the conclusion that although certain drugs if skillfully applied can prevent venereal disease, the prophylactic packet and the instruction of men as to its use did not produce such a general reduction as to warrant its recommendation by the government. It was found, however, that when preventive treatment was provided by a skillful attendant, the results were better. A special committee of the National Birthrate Commission of Great Britain unofficially took up the question and came to the same conclusion.

The question which confronts the British government is that there is no unanimity of opinion on the medical side as to the practicability of self-



disinfection for civilian population, whereas on the moral and social side there are most weighty objections advanced against it. This question is one in which the moral and social considerations, as well as the medical, are important. In the circumstances the British government has decided that it cannot give official support to self-disinfection as a policy. The Ministry of Health is of the opinion, however, that the arguments which have influenced the British government in deciding against this measure, do not apply to the provision of ablution centers. Final conclusions as to the value of such centers cannot be drawn, but experience thus far, warrants the continuance of the experiment.

#### THE SOCIAL WORKER'S APPROACH TO THE FAMILY OF THE SYPHILITIC

In the main, the social worker in syphilis need be no different from any good social worker. She should possess mental poise, sympathy, tact, and judgment. She must be interested in the medical as well as the social side of the problem. Syphilis is a contagious disease and should not be looked upon as a punishment for sin. The moralist point of view should be avoided. The social worker must enter the lives of her patients as a human being, treating each family according to its individual needs.

In summarizing, the author states that the social worker's duties are:

1. To instruct the family how to avoid infection, emphasizing the seriousness of the situation, but avoiding over-frightening the family.
2. To find out whether any members of the family are infected, by arranging for family examination.
3. To aid the patient in disclosing the fact of syphilis in such a way that the mate acquires the right attitude.
4. To utilize the mate as an ally in making the patient take continuous treatment.
5. To arrange for treatment of syphilitic relatives, and to see that it is carried through by endeavoring to develop a cooperative spirit, especially in the difficult problems of seemingly well relatives and syphilitic children.
6. To secure family examination for early symptom-free syphilitics and late syphilitics, recognizing that this is more difficult to bring about than the examination of the family of contagious patients.

Some of the more pressing situations one must be prepared to deal with are:

1. Readjustment of the mental life of the family.
2. Readjustment of the physical life of the family.
3. Economic difficulties in the families of late syphilitics including such situations as a working wife, diminished income, charitable aids, etc.

One cannot offer any method of dealing with these situations. It is important for the worker to analyze the effect of her methods in each case, to plan new attacks, and to synthesize her successes and failures into a better technique.—Maida H. Solomon (Hospital Social Service, Vol. III, No. 6, 1921).

#### SYPHILIS OF THE NERVOUS SYSTEM IN CHILDREN

In the congenital type of syphilis, the clinical signs seem to point to a more general involvement than is the case in the acquired type. The involvement of the nervous system occurs oftener in the congenital cases. Therefore, the lumbar puncture becomes an essential part of the examination of every case of unsuspected syphilis characterized by nervousness, backwardness, and defectiveness.

Juvenile paresis is the most frequent of all the various forms of syphilis seen in children. It is very similar to the adult type.

The author gives a number of case histories.

He comes to the following conclusions:

1. The condition is common.
2. The nervous system may be involved early.
3. A lumbar puncture may be of great help and should be a routine part of the examination of every nervous child.
4. Syphilis in children necessitates a blood and spinal fluid: examination of the parents and vice versa.
5. Treatment is not very promising.
6. The stigmata are not necessary nor even frequent.—Edward Livingston Hunt (American Journal of Syphilis, Vol. V, No. 2, April, 1921).

#### SOCIETY PROCEEDINGS

##### Bremer County Medical Society

The Bremer County Medical Society met at the Club Cafe Room, Waverly, May 26. After an evening dinner the society convened at Mercy Hospital and listened to the report presented by Drs. Kern and Rohlf of the meeting of the State Society at Council Bluffs.

##### Cerro Gordo County Medical Society

The Cerro Gordo County Medical Society met May 17. Dr. A. R. Barnes of the Mayo Clinic delivered an address on Heart Disease. Dr. W. E. Long, delegate from the Cerro Gordo County Medical Society to the Iowa State Medical Society, presented a report on the proceedings at the Council Bluffs meeting.

##### Dubuque County Medical Society

The Dubuque County Medical Society held its "annual June meeting" at Dubuque, June 22. The following program was carried out in the afternoon:

The Simplicity of Infant Feeding and Other Hazards—Dr. I. H. Tumpeer, Chicago.

The Spinal Fluid in Diagnosis—Dr. D. V. Conwell, Iowa City.

Unhappy Results in the Treatment of Fractures—Dr. Kellogg Speed, Chicago.

Graves' Disease from the Standpoint of the Surgeon—Dr. Allen Graham, Cleveland.

In the evening there was a banquet at the Dubuque Elk's Club and this was followed by an address by Dr. Edward Evans of La Crosse. Dr. Evans spoke on the Basic Science Law of Wisconsin, its Genesis and Accomplishments.

The meeting was largely attended by physicians from Wisconsin, Illinois and Iowa. It was voted one of the most successful meetings ever held by the Dubuque society.

#### **Jasper and Poweshiek County Medical Societies**

Jasper and Poweshiek County Medical Societies held a joint meeting at Newton, June 10. The afternoon session was held at the hospital at 2:00 p. m., when the following papers were read:

Progress of Medicine—Dr. J. A. Johnson, Newton.

Scarlet Fever—Dr. O. C. Ringena, Brooklyn.

Some Adventures in Blood and Otherwise—Dr. Evan S. Evans.

Following these papers came a round table discussion on The Acute Patient, participated in by Dr. R. W. Wood, Dr. J. C. Hill and Dr. J. W. Young.

After a dinner at the Country Club discussions were presented on the following subjects:

Functions of the Sympathetic Nervous System—Dr. John Thomas McClintock, University of Iowa Medical School.

Hemorrhagic Diathesis—Dr. Julius S. Weingart, Des Moines.

#### **Mitchell County Medical Society**

The Mitchell County Medical Society was entertained at the Cottage by the Mitchell Dam, Friday, July 22, with Dr. Lott as host.

Besides the local members there were doctors present from Waterloo, Waverly, Oelwein, New Hampton, Rudd, Marble Rock and Charles City.

The program consisted of talks and demonstrations by Drs. Prentiss, Alcock and Miller of the faculty at the State University.

A six-thirty supper was served by Mrs. Lott.

Guy H. Lott, Sec'y.

#### **Pocahontas County Medical Society**

On June 21 the Pocahontas County Medical Society held the last meeting of the summer at Pocahontas. This is in accordance with a resolution passed by the society, September 14, 1926.

A scientific paper was read by Dr. A. W. Patterson of Fonda on the subject of Pulmonary Embolism. The basis for Dr. Patterson's paper was a case of embolism of the lung which was in his hands until complete recovery.

At this meeting the following officers were elected for the ensuing year: President, Dr. A. P. Maloney of Fonda; vice-president, Dr. C. L. Jones of Gilmore City; secretary-treasurer, Dr. W. A. Bagby of Laurens; delegate and alternate to the next meeting of the State Society will be elected at the next regular meeting of the society in October.

#### **Tama County Medical Society**

The Tama County Medical Society held its last regular meeting at Conants Park, a beautiful well equipped resort near Gladbrook, June 27.

Fourteen Tama county doctors with their wives and guests enjoyed a sumptuous dinner served by the ladies of the United Brethren Church of Gladbrook, after which a better than usual program was listened to.

Dr. A. J. Farnham of Traer read a very instructive paper on Diagnosis of Heart Disease, using the blackboard extensively in explaining the different pathological heart sounds and movements.

Dr. A. A. Pace of Toledo took up the prognosis and treatment of this—at this time—very popular disease.

Dr. Knight E. Fee of Toledo told very interestingly of his visit to the last A. M. A. meeting at Washington, D. C.

Albert A. Crabbe, Sec'y.

#### **Des Moines Valley Medical Association**

The fifty-fourth annual meeting of the Des Moines Valley Medical Association was held at Ottumwa, Iowa, Tuesday, June 21, 1927. The program was as follows:

Morning Session—Ottumwa Hospital

9:30—Changing Views in Diabetes—George B. Crow, M.D., Burlington.

10:15—Hernia of the Pelvic Contents—W. C. Newell, M.D., Ottumwa.

11:00—Cancer of the Cervix—K. L. Johnston, M.D., Oskaloosa.

12:30—Luncheon at Ottumwa Country Club.

Afternoon Session—St. Joseph Hospital

2:00—Address on Cancer—Montrose T. Burrows, M.D., Associate Professor of Experimental Surgery, Washington University Medical School, St. Louis, Missouri.

3:00—Liver Feeding in Pernicious Anemia—Walter H. Nadler, M.D., Assistant Professor of Medicine, Northwestern University Medical School, Chicago, Illinois.

4:00—The Thymus Gland. Some Clinical and Roentgenological Observations Based on a Series of 40 Cases—H. A. Spilman, M.D., Ottumwa.

Officers—President, Dr. H. W. Vinson, Ottumwa; first vice-president, Dr. H. C. Young, Bloomfield; second vice-president, Dr. J. C. Moore, Eldon; secretary-treasurer, Dr. H. A. Spilman, Ottumwa. Board of Censors: Drs. H. C. Heady, Bloomfield; D. T. Rambo, Ottumwa; A. P. Johnson, Sigourney.

#### **Medical Society of the Missouri Valley**

Dr. Thomas G. Orr, president of the Association, was the guest of honor at the meeting of the Polk County Medical Society, Des Moines, Iowa, Tuesday evening, April 26, where he spoke upon the subject of Intestinal Obstruction, Experimental and Clinical. Dr. Orr also addressed the society in the interests of the annual meeting, which is to be held



in Des Moines, September 14, 15 and 16, outlining the program and plans for reorganization. Dr. Granville Ryan, chairman of the arrangement committee, gave a brief resume of the plans for entertainment. Much enthusiasm developed regarding the meeting and a successful session is assured. Following the addresses, the president of the Polk County Medical Society appointed the following committees:

General Arrangement Committee—A. D. McKinley, M.D. (ex-officio); Granville Ryan, M.D., chairman; Fred Moore, M.D., vice-chairman.

Exhibit Committee—L. K. Meredith, M.D., chairman; A. S. Price, M.D.; H. E. Ransom, M.D.

Clinics—Julius S. Weingart, M.D., chairman; R. R. Simmons, M.D.; Howard D. Gray, M.D., A. P. Stoner, M.D.

Transportation Committee—John W. Martin, M.D., chairman; F. W. Fordyce, M.D.

Entertainment Committee—Charles Ryan, M.D., chairman; Thomas A. Burcham, M.D.; James E. Dyson, M.D.

Chas. Wood Fassett, M.D., Sec'y.

---

### PERSONAL MENTION

---

We are reminded from time to time by the press of the long years of service of some useful citizen, among them sometimes we find the names of a physician whose years of practice in a single community has established his worth, and his retirement has come as a distinct loss among those to whom he has ministered for many years. We have noted among the list, Dr. G. D. Darnell of West Union who has been in practice fifty-six years and at the age of eighty-three years is "still active". He located in West Union about 1872 where he has practiced continuously since, not only has he been a medical practitioner but an interested citizen in town welfare. Dr. Darnell became a member of the Fayette County Medical Society in 1874 and has filled every office in the society.

Dr. Don M. Griswold, head of the department of hygiene at the University of Iowa, has accepted the position as deputy state health commissioner for the State of Michigan.

Dr. H. R. Reynolds, formerly of Clinton, has been transferred from the position of executive medical officer, Veterans' Bureau Hospital at Northampton, Massachusetts, to the position of clinical director, Veterans' Bureau Hospital, Philadelphia, Pennsylvania.

Dr. George T. Barcklow, formerly surgeon in the United States Army, and for the past six years in charge of biological work, Iowa State Board of Health, has opened an office in Dubuque. Dr. Barcklow is a graduate of the University of Louisville, class 1912.

Dr. R. R. Simmons, pathologist at the Methodist Hospital, Des Moines, and associate editor of the

Journal of the Iowa State Medical Society, has been appointed assistant medical director of The Equitable Life Insurance Company, in charge of the home office.

Dr. A. J. Farnham and wife of Traer recently returned from attending the Doctor's class reunion in Chicago. The Doctor reports that after twenty-five years out of a class of 115, only seventy are now living.

Dr. George Hays of Clutier, Iowa, formerly of Louisville, Kentucky, has been taking an enforced rest in bed for the last six weeks as the result of a badly dilated heart, as a result of spending most of the night in his car, stuck in a mud hole, after becoming exhausted in trying to push the car out. This happened between Davenport and Cedar Rapids some time in April, and the Doctor was unable even to go for help, and had to remain in the car till some one came along, which was several hours later. During the Doctor's sickness Mrs. Hays has had to undergo an operation for acute appendicitis.

---

### MARRIAGES

---

Dr. B. J. Moon of Cedar Rapids and Miss Dorothy Hallett of Bloomington, Illinois, were married June 7. Dr. Moon is a graduate of the medical department, Iowa State University.

---

### OBITUARY

---

Dr. I. M. Lovett of Lineville, died May 24, 1927, at the age of fifty-eight years. He was born at Lineville, Iowa, March 26, 1869. After graduating from the Lineville high school he entered the Keokuk Medical College from which he graduated in 1890. He first located in Pleasanton and in 1899 moved to Lineville, where he continued in the practice of medicine up to the time of his death.

On June 3, 1900, Dr. Lovett married Miss Maude Bicknell who survives him.

---

Dr. John P. Mullin of Iowa City died at Mercy Hospital, Iowa City, April 6, 1927. Dr. Mullin was born in Ireland and came to Iowa City with his parents when he was an infant, graduated from the medical school of the Iowa State University in 1895. Dr. Mullin, in addition to his activities as a practitioner of medicine, devoted much time to the welfare of the community as a member of the city council. He was also a member of the medical faculty of the Iowa State University, a member of the Johnson County Medical Society, of the Iowa State Medical Society and of the American Medical Association.

On October 16, 1898 he married Miss Margaret Mahan of Iowa City. Dr. Mullin was especially noted as a family physician, and as a friend and neighbor.

### PASTEUR UP-TO-DATE

It was Pasteur, as every one knows, who first proved that the bite of a rabid dog was not necessarily fatal; more than that, that the development of hydrophobia in the case of a person so bitten could be prevented with almost absolute certainty. The protective agent was the attenuated virus of rabies, from the spinal cord of a rabid dog, and the doses differed from each other in the degree to which the virus had been attenuated—first a very weak dose, then a stronger, and so on, the object being, of course, to develop resistance in the patient before the end of the incubation period of the disease. The method itself was considered so dangerous by Pasteur himself that he hesitated to use it on a human being when the opportunity arose. But it has since that time saved unnumbered lives.

Pasteur was the pioneer. Since his time a method has been discovered for eliminating entirely the element of danger from the use of rabies vaccine, without the least sacrifice of protective effect, so that now there is no possibility of harm resulting from the proper use of the improved vaccine, and the record of successful inoculations is 100 per cent to the good.

The virus is not merely attenuated, but killed, in the Cumming Vaccine, marketed by Parke, Davis & Co., and all the doses are alike, thus rendering this product different not only from the original Pasteur product, but from bacterial vaccines. In the use of bacterial vaccines the doses are graded, but this is not the case with the Cumming vaccine. It is quite apparent from the results reported that immunity does not in this case depend upon graded doses, but only upon the use of an active vaccine administered daily for the required period—fourteen days or twenty-one days, according to the location and severity of the wound.

Parke, Davis & Co. offer a twenty-four page illustrated booklet on rabies to medical inquirers.

### BOOK REVIEWS

#### NEW AND NON-OFFICIAL REMEDIES, 1925

Containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1925. Cloth. Price, Postpaid, \$1.50. Pp. 461+XL. Chicago: American Medical Association, 1925.

New and Non-official Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually provides the American medical profession with disinterested critical information about the proprietary medicines which are offered to the profession and which the Council deems worthy of recognition. The book also contains descriptions of non-proprietary medicines

which the Council considers worthy of consideration.

In addition to a statement of the actions, uses and dosage of each product, many of these are arranged in classes and these classes are introduced by a general discussion of the group; thus the silver preparations, the iodine preparations, the arsenic preparations and the biologic products are preceded by a thoroughly up-to-date discussion of the group.

A glance at the preface shows that, in addition to the description of the new drugs which were accepted during the past year, the book has been extensively revised; many of the preparations listed in the previous edition have been omitted and the statements of the properties of others have been revised to bring the descriptions in accord with present day knowledge. Of particular interest is the revision of the general articles; thus the article on endocrine products has been entirely rewritten to bring this chapter in accord with the series of articles on glandular therapy which were published in 1924 under the auspices of the Council. A general article on medicinal dyes has been added.

A section of the book (brought up-to-date each year) gives references to proprietary articles, not accepted for New and Non-official Remedies. This list, in conjunction with the book proper, constitutes a cumulative index of proprietary medicines which physicians may consult when some proprietary product is brought to their attention.

Physicians cannot dispense with the newer remedies that are being brought out, yet they can neither judge them on the basis of the manufacturers' claims nor have they the opportunity or time to determine their merits. For this reason every physician should possess a copy of the annual volume of New and Non-official Remedies which the Council on Pharmacy and Chemistry puts at his disposal.

### PRINCIPLES OF CHEMISTRY

An Introductory Text-book of Inorganic, Organic and Physiological Chemistry for Nurses and Students of Home Economics and Applied Chemistry, with Laboratory Experiments, by Joseph H. Roe, Ph.D., Professor of Chemistry, George Washington University Medical School, Etc., Illustrated. The C. V. Mosby Co., St. Louis, Missouri, 1927.

This volume has been prepared primarily as a text-book for use by nurses. The attempt has been made to give a brief, but sufficiently comprehensive survey of the general field of inorganic and organic chemistry so that the nurse may have a sufficient knowledge of this branch of science to correlate her subsequent courses. Attention is given to physiological chemistry which adds considerably to the usefulness of the book, particularly to those students interested in Dietetics.

An adequate number of diagrams and charts are used to illustrate the text.

R. R. S.



## A MANUAL OF PHARMACOLOGY AND ITS APPLICATION TO THERAPEUTICS AND TOXICOLOGY

By Thorald Sollmann, M.D., Professor of Pharmacology and Materia Medica in the School of Medicine of Western Reserve University, Cleveland. Third Edition; Entirely Reset; 1184 Pages. W. B. Saunders Company, 1926. Cloth \$7.50 Net.

This appears to be a reference book of unusual value, particularly to the student in medicine and to the practitioner in general. It is difficult for the physician of today to determine the value of medical agents as they were understood a generation ago and drugs in particular have been laid aside for more spectacular means of treating disease. Yet all classes of practitioners must concede that medical agents have an important place in the management of cases of sickness, not perhaps according to the conception of the physician of years ago but in the light of a more accurate knowledge of physiology and pathology and of chemical physiology and chemical pathology.

It is not necessary to offer an argument in support of the drug treatment of disease for their value is admitted but there is much to say regarding a scientific knowledge of the various preparations used and it is the purpose of this book to set forth what is known of pharmacology and to bring to the attention of the profession the drugs and preparations which have come into use in the last few years. It appears that the work has served this purpose. It is clear that the student and the physician will find a reference to its pages an important and helpful aid in practice.

## THE SURGICAL CLINICS OF NORTH AMERICA

Volume 6, Number 4, Mayo Clinic Number; 274 Pages, 91 Illustrations. Price Per Clinic Year, Paper \$12.00, Cloth \$16.00. W. B. Saunders Company.

This number has for its introduction a clinic by Drs. W. J. Mayo and Arthur C. Johnson on Ectopic Kidney, Presenting as Pelvic Tumor, Recurring Epistaxis from Chronic Hemorrhagic Purpura; Meckel's Diverticulum. This group of cases represents a clinic of great interest, fortunately not common, but when they occur, cause much anxiety. A second clinic is by Drs. C. H. Mayo and Lester D. Powell, The Colon as a Urinary Receptacle. The statement of the great relief and comfort in cases of atrophy of the bladder from transplanting the ureter into the sigmoid is a matter of interest. This discussion and presentation of illustrative cases renders this particular clinic number one of exceptional value and brings in the Coffee principle of bringing the ureter for about 3 cm. between the mucus membrane and the muscle wall and thus prevents the flow of infectious fluids from the bowel through the ureter to the kidney. About one hun-

dred cases of exstrophy of the bladder have come to the Mayo Clinic, of which seventy have been treated by transplanting the ureter into the bowel. Several clinics are devoted to surgery of the urinary tract and a considerable section of this number is given to the surgery of the Biliary System. After considering some questions in relation to Retro-tracheal Goiter by Pemberton, Dr. M. S. Henderson takes up Surgical Lesions of the Hip Joint; followed by Henry W. Meyerding on Chronic Arthritis with Loose Bodies and Genu Varum, etc. Both clinics are of unusual interest.

This, the Mayo Clinic Number, is of very considerable interest and value and worthy of careful reading and study.

## SURGICAL CLINICS OF NORTH AMERICA

December, 1926; 318 Pages; 93 Illustrations and Complete Index to Volume Six. Per Clinic Year, Paper \$12.00 Net, Cloth \$16.00 Net. W. B. Saunders Company.

This is a New Jersey Number and contains a considerable number of important clinics chiefly from Newark hospitals, also from Jersey City and Atlantic City. One of the most important clinics is from the Newark Eye and Ear Infirmary by Dr. Willis P. Eagleton on Traumatic and Infective Lesions of the Head. Dr. Francis Reynolds Hausling presents a series of cases at the Newark Memorial Hospital on Painful Shoulder. Dr. William Edgar Darnall at the Atlantic City Hospital, presents a rather full clinic of particularly interesting cases. Also, Dr. Donald Miner at the Christ Hospital at Jersey City, presents an interesting clinic. Altogether the New Jersey Clinic Number is interesting in the number and character of the work presented at the various hospitals.

## HEART AND ATHLETICS, CLINICAL RESEARCHES UPON THE INFLUENCE OF ATHLETICS UPON THE HEART

By Felix Deutsch, Privatdocent in Internal Medicine at the University of Vienna, and Dr. Emil Kauf, Assistant at the "Heart Station" in Vienna, English Translation by Louis M. Warfield, A.B., M.D., Formerly Professor of Clinical Medicine at Marquette University Medical School; Formerly Professor of Internal Medicine, University of Michigan, Etc. C. V. Mosby Co., St. Louis, 1927.

The translation of this volume makes available in the English language a clinical research dealing with the influence of systematic athletic exercise upon the heart. Up to this time no such research has been available. Whether considered from the standpoint of the volume of material studied or from that of the exhaustive and systematic analysis of results, the volume is unique. For these reasons the volume will be immediately welcomed by the student of cardiology, the examiner of athletes and

that large group of persons intimately concerned in the participation or direction of athletic activities.

The authors conclude from this exhaustive research that the heart changes observed are due fundamentally to the type of individual constitution and secondarily to the nature of the exercise performed. They feel that there exists an inherited or familial disposition to cardiac hypertrophy. They demonstrate that the heart changes produced by athletic activities are primarily those resulting from dilation of the organ. They give a detailed summary of methods, which when properly followed, will secure accurate information concerning the individual cardiac response to exercise and draw helpful conclusions regarding the correct advice to be offered in the different groups as determined by the tests.

The volume is prepared for the layman as well as the physician. R. R. S.

#### A TEXT-BOOK OF EXODONTIA, EXODONTIA, ORAL SURGERY AND ANESTHESIA

By Leo Winter, D.D.S., Professor of Oral Surgery, New York University College of Dentistry, Etc., with 329 Illustrations. The C. V. Mosby Co., St. Louis, 1927.

This volume, prepared primarily as a text-book for dental students, contains much material on local and general anesthesia which will be of interest to the physician as well. The volume deals in the first half with anesthetics, their selection and use, while the latter portion deals minutely with methods of tooth extraction. The style of presentation of the author is pleasing, straightforward and clear. The numerous illustrations and colored plates used, add much to the attractiveness of the volume.

R. R. S.

#### DISORDERS OF THE NOSE, THROAT AND EAR, PROBLEMS OF DEAFNESS

By Aaron Roth, M.D., F.A.C.S., Attending Ear, Nose and Throat Surgeon, Jewish Hospital, Brooklyn, Etc., with Original Illustrations by the Author. Physicians and Surgeons Book Co., Brooklyn, New York, 1927.

This small volume covers in a brief and popular fashion the field of ear, nose and throat physiology and pathology. Especial attention is given to the consideration of diseases of the ear with reference to deafness. The chapters dealing with the management of deafness and that covering the prevention of deafness are especially well presented.

To the layman interested in problems relative to the nose, throat and ear, this volume will be especially useful. To the nurse it may well be used as a text-book.

The volume contains many unique and instructive illustrations. R. R. S.

## RABIES VACCINE

[[Cumming]]

~P. D. & CO.~

*A Safe and Dependable  
Prophylactic*

**R**ABIES is invariably fatal. For this reason even the most trivial wounds from bites of dogs apparently normal should be treated as if the animals were rabid. After a most thorough cauterization of the wound, Rabies Vaccine (Cumming), P. D. & Co., may be administered without fear of infecting the patient, since this vaccine does not contain the living virus.

Yet this vaccine may be employed with the assurance of a potency superior to that of the Pasteur method. In not a single instance, out of fifteen thousand and more cases in which Rabies Vaccine (Cumming), P. D. & Co., was given, has rabies developed when the necessary local treatment was instituted at once and the vaccine administered promptly.

Not only is Rabies Vaccine (Cumming), P. D. & Co., harmless, but its administration is no more technical or difficult than an ordinary hypodermic injection. There is no gradation of doses; all the doses are alike.

Rabies Vaccine (Cumming), P. D. & Co., is supplied in packages of seven 2-cc. syringe containers. On receipt of an order we supply a package of seven syringes immediately, and the remaining one or two packages at intervals of four days. The average case of mild or uncertain exposure requires only 14 daily injections. In face wounds or severe lacerations anywhere, 21 doses are necessary.

*The 24-page booklet, "Rabies Vaccine (Cumming)," will be supplied to any physician on request.*

PARKE, DAVIS  
& COMPANY

[U. S. License No. 1 for the Manufacture of Biological Products]

DETROIT, MICHIGAN

RABIES VACCINE (CUMMING), P. D. & CO., HAS BEEN ACCEPTED FOR INCLUSION IN N. N. R. BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION



## There is No Reason for the Wearer of Bifocals to be Shut In with a Large Reading Segment

By selecting the proper style of bifocal the floor, steps, curbing and golf ball will be just as clear as they ever were. There is no occasion for a bifocal wearer to wear lenses that cause him to stumble and be uncertain as to footing.

Re-supply that which nature has taken away and enjoy the Step of Youth, which only the UNIVIS Bifocal can give.

— Exclusive Opticians for Oculists —

### UHLEMANN OPTICAL COMPANY

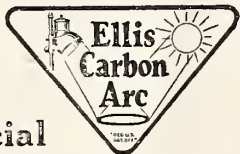
Mallers Bldg.,  
Pittsfield Bldg.,  
CHICAGO, ILL.

ESTABLISHED 1907

Copyright 1927—Uhleman Optical Co.

Stroh Bldg.,  
Maccabees Bldg.,  
DETROIT, MICH.

### For Ultra-Violet Radiation and Artificial Sunlight



The Ellis Carbon Arc is offered by one of the oldest and largest arc lamp manufacturers.

#### Advantages

Uses long burning 12-inch carbons, all makes, which produce desired spectra—ultra-violet to infra-red. Automatic feed mechanism has successfully stood up under years of hard daily use—recently selected by the U. S. Navy on a large lamp order. Current: 10-50 amperes—yielding *adequate volume* of radiation for all needs, average office to high intensity work. A. C. or D. C. operation. Refined appearance. Full set of local applicators. Ball bearing casters and counterbalance. Sold on trial, on convenient terms at a reasonable price consistent with quality of materials and workmanship.

#### This New Book, "The Carbon Arc"

—a conservatively written treatise containing 54 pages of scientific data, 21 spectrograms; 20 illustrations, 10 showing lamp in actual use; detailed technique and medical opinions, a valuable book you should have.

Copy Free on Request

Ellis Manufacturing Co.  
Wrigley Bldg., 400 No. Michigan Ave.  
CHICAGO



## RADIUM RENTAL SERVICE

BY

### THE PHYSICIANS RADIUM ASSOCIATION of CHICAGO, Inc.

Incorporated under the laws of Illinois, not for profit, but for the purpose of making radium available to Physicians to be used in the treatment of their patients. Radium loaned to Physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

*Careful consideration will be given inquiries concerning cases in which the use of Radium is indicated.*

### THE PHYSICIANS RADIUM ASSOCIATION

1105 Tower Bldg., 6 N. Michigan Ave.  
CHICAGO, ILL.

Telephones:

CENTRAL 2268-2269

Managing Director:

WM. L. BROWN, M.D.

#### BOARD OF DIRECTORS

William L. Baum, M.D.

Wm. L. Brown, M.D.

Frederick Menge, M.D.

Walter S. Barnes, M.D.

Louis E. Schmidt, M.D.

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, SEPTEMBER, 1927

No. 9

## RELATION OF THE HEALTH DEPARTMENT TO THE PRACTICING PHYSICIAN\*

HENRY ALBERT, M.D., Des Moines  
Commissioner, State Department of Health

The rapid strides made in the public health movement during the past decade have brought with them—as great developments always do—certain problems which require careful consideration for their proper solution.

In the conduct of public health activities, certain methods have been practiced and certain organizations formed which are, or at times appear to be, in conflict with the recognized functions of practitioners of medicine.

There should be no essential conflict between the health department and the practicing physician and there need not be if the function of a health department is properly understood and if the activities of the department are limited to its proper sphere.

The work of the practicing physician deals chiefly with the treatment of disease as distinguished from that of the health official which deals primarily with its prevention. It must be remembered however, that the health officer has no monopoly of the field of prevention—that the true physician is indeed daily giving information and treatment which is prophylactic in character. On the other hand, the health department has in some localities and under certain conditions been practically forced to engage in the treatment of certain communicable diseases in indigent patients.

There is, therefore, necessarily some overlapping of activities. These borderline and overlapping problems will cause no friction if they are met in a proper spirit.

In general it should be said that the practicing physician should be favored in all cases of doubt unless it is very clear that the public health will

suffer from lack of adequate participation by the health department.

We shall briefly discuss some of the types of work and borderline problems which, in some places, have given rise to concern on the part of the medical profession.

### I. PUBLIC HEALTH EDUCATION

There is, I believe, no longer any question but that the laity is entitled to be informed regarding ways and means of avoiding or preventing disease. There are still some physicians who believe that such information should be limited to what the physician gives to his patients by word of mouth.

It must be apparent however that this method is altogether inadequate. People want to remain well and healthy; people desire information and are entitled to it. To quote from a recent editorial in the Journal of the American Medical Association—"preventive medicine is the property of all mankind".

The health department is in a much better position by virtue of its legitimate and indeed necessary function, its organization and the propriety of the situation to initiate and lead in programs of education than practicing physicians are.

Educational programs cannot very well be properly conducted without bringing some person's name into the limelight. Physicians, by virtue of ethical standards, usually shun publicity. It savors of advertising for personal gain. This criticism cannot be lodged against the health officer, especially the one who gives his entire time to public health work. Here indeed is one of the strong arguments for the full time health official.

A timely editorial in the Journal of the American Medical Association (October 9, 1926, page 1217) contains this statement: "Publicity is permitted to men not in practice and to officials in departments of health, as not only desirable but necessary for the fulfillment of their official duty." The physician can, however, be of ma-

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



terial assistance in the education of the public. By virtue of his private work he is in closer touch with the patients than the health official can possibly be. As a result the physician can, on the one hand, convey to the patient much of the information which the department puts out with such additions and explanations as the situation may require. On the other hand, he can convey to the health official and department his patient's needs, his attitude and his reaction to public health programs.

As examples of desirable publicity material, I may mention the following:

(a) The health columns of our metropolitan papers of which the "How to Keep Well", by Dr. W. A. Evans, is probably the best example.

(b) The "Health Notes" by the Calhoun County (Iowa) Medical Society. This is a good example of publicity by a medical society.

(c) The "Health Service", by Dr. Morris Fishbein, Editor Journal of the American Medical Association. This illustrates well the attitude of the largest body of medical men in the world.

(d) The Weekly Health Messages of the State Department of Health. These were started last November. They deal with subjects of timely interest and as far as possible of "Iowa" application. A copy is sent to all of the newspapers of the state, also to the president and secretary of each county medical society. They are widely copied by the public press as indicated by the returns of press clippings.

We aim in our publicity material not only to give the public desirable information, but to urge people to consult their family physician regarding further information, advice, and treatment. We believe that by so doing we are rendering the public a great service. Incidentally such advice should not be objectionable to the medical profession.

## II. NON-PROFESSIONAL ORGANIZATIONS DEALING WITH HEALTH

Many organizations interested in some phase of health work have been formed in recent years. Some of these were organized and are now headed up by persons without a medical training. As a result some of their activities have been at variance with what the medical profession believes to be sound practice. This is not as it should be and that it is so, may be largely the fault of the medical profession. Health organizations will be formed. Their policies should, however, be guided by physicians so as to make sure that they will be sound. Better still, physicians should take a leading part in their formation.

Voluntary health organizations often have an executive secretary who is not a physician. This is satisfactory, provided that the technical health problems involved are decided by medical men. An example of a voluntary health organization doing splendid work is the Iowa Tuberculosis Association. In this connection it should be said that the person who has charge of an official health department should be a physician or one who has had training in the basic medical or sanitary sciences since such is the basis on which public health work is founded. In addition, whether physician or not, the health officer should be able to see the practicing physician's point of view.

## III. CAMPAIGNS OF DISEASE PREVENTION AND ERADICATION

Even with considerable publicity of the usual type, it is not possible to secure the desired results as rapidly as possible. The force of habit of doing things in the older or prevailing way is usually too strong to overcome the suggestions contained in publicity items.

It has accordingly been found desirable to put on intensive campaigns to put across certain definite programs. The best example of a campaign of this type that has ever been carried on in Iowa is the one to eradicate diphtheria by immunization with toxin-antitoxin, conducted on a state-wide basis by the State Department of Health and in immediate charge of Dr. Wallace. This has been most successful. To date 210 communities have completed the program and 155 are now at work on it. Where completed, from 75 per cent to 97 per cent of the school population has been immunized.

This campaign furnishes a splendid example of effective cooperation between physicians, health officials, public health nurses, school authorities, parent teacher associations, and citizens generally.

The initiative in a given community is often taken by a non-medical group. This is indeed often desirable at least as far as the reaction of the general public is concerned. There will then not be the charge of self-interest. No group should, however, go very far with such a program without consulting the medical profession regarding plans of procedure and the basis on which this work is to be done.

I take it that there is entire justification for a rather general agreement as to what may be regarded as a proper fee or an adequate basis of compensation, giving full consideration to the plan involved in rather wholesale immunization. It should not be expected that the physician

should do this work without reasonable compensation.

The "Summer Round-Up" is another example of a public health campaign. This represents a movement started three years ago by the National Congress of Parents and Teachers. Briefly, the aim of this project is to make a list of all the children who are due to enter the first grade of school next September; to have these children examined by the family physician and dentist and, if possible, to have the physical defects which are discovered corrected before they enter school.

The aims of the movement are most commendable. It should be possible to conduct the program to the entire satisfaction of the medical profession and with great benefit to the rising generation.

The State Department of Health endorses this movement. It does not, however, approve of the attitude apparently taken by some organizations a year ago, of expecting physicians to make the preliminary examinations free of charge. We are making an endeavor to correct this attitude. I quote the following from a letter sent out in connection with such:

"I feel also that both the examinations and the corrections should be made by the family physician, as far as possible. It is very important in the interests of the growing child that the family physician who probably brought the child into the world and has attended him in illness in his early years, should also make the physical examination contemplated by the Summer Round-Up.

"It will of course be expected that the family physician will charge a reasonable fee for such work."

In this connection, I desire to call attention to two observations regarding the relation of the patient to the family physician.

We hear a great deal these days about the rapid disappearance of the family physician. The maintenance of the family physician relationship is exceedingly desirable especially for the patient. Whatever else has contributed to the disturbance of this relationship, we feel that physicians themselves are partly to blame. I wonder how many of you have taken the initiative to advise and insist that the children of your clientele be vaccinated against smallpox at an early age and again later especially when a case of the disease has appeared in the community. Or have you waited until the health officer has sounded a note of warning or the concerned parents have come to you for advice. I fear that too often it has been the latter. If it had not been so, the

health officer of Sioux City would not have been able to find, as he did recently, that 95 per cent of more than 6,000 school children had successful "takes" showing that they were susceptible to smallpox. This same example illustrates what a good health department can do, not only in having 95 per cent of the children rendered immune to smallpox but in having such done almost entirely by the family physician. Any health department properly conducted can do much to restore the former desirable and intimate relations between the physician and the families which represent his clientele.

#### IV. DIAGNOSIS

The health department is, of course, interested in a correct diagnosis of a communicable disease. The propriety of a health official exercising such function cannot properly be questioned.

#### V. PREVENTIVE TREATMENT

Many health departments provide vaccinations and give other prophylactic treatments without charge. Others do so only for indigent persons.

Except in cases of emergency—where an epidemic is threatened, it would seem to be better to leave all preventive treatments to practicing physicians. Even during epidemics it can usually be arranged for the work to be done by practicing physicians on a basis which is effective in reaching the general population and which is also fair to the doctor. It does seem entirely proper for the health department to effect a working organization and to also supply the biological and other necessary materials.

#### VI. CURATIVE TREATMENT

In some places health departments have provided clinics for the diagnosis and treatment of certain ailments more especially tuberculosis and venereal diseases in indigents.

Such clinics are common in England and in many of our larger cities. They do indeed render a valuable service in the prevention of disease.

It is my judgment that whenever possible, clinics for the treatment of disease in indigents had better be under the supervision of the organized medical profession. This will remove from the health department all suspicion of "state medicine" in the sense in which that term is usually employed. The "Des Moines Health Center" is a fine example of a well organized health clinic. Here the overhead expenses are borne by the community through the Associated Charities and the physicians of the city in turn



contribute their services to these indigents without charge.

Commendation should also be made of the splendid tuberculosis and heart disease clinics arranged for between the voluntary state organizations dealing with these diseases and the county medical societies.

#### SUMMARY

1. The work of the practicing physician deals chiefly with the cure—that of the health official, the prevention of disease.

2. The physician also does a large amount of preventive work. Such should continue in increasing amount.

3. The physician deals chiefly with private cases; the health official chiefly with problems of community interest.

4. The physician as a citizen has also a communal responsibility, and as one especially qualified, should not stand aloof from nor disparage legitimate public health measures but, on the other hand, should take an active interest in such movements to make sure that they are conducted along sound lines.

5. Voluntary health organizations serve a useful purpose. Although their executive officer need not be a medical man, their policies should however be guided by physicians.

6. The public desires and is entitled to information from reliable sources relative to the promotion of good health and the prevention of disease.

7. Publicity material can be given out with entire propriety and indeed should be given out by a health official or any other physician, or indeed any other qualified person not engaged in private practice. When prepared by a practicing physician, it would seem better to have the publicity material appear under the name of an organization.

8. Physicians should take part in all campaigns of disease prevention and eradication.

9. Physicians should not be expected to render technical service in either examinations or treatments without reasonable compensation.

10. Health departments should not engage in the administration of drugs for either preventive or curative purposes unless the failure to do so will distinctly jeopardize the health of the community. Physicians should see to it that no such necessity is thrust upon the health department.

11. There will be no friction between the practicing physician and the health department if borderline and overlapping problems are met in a proper spirit.

#### Discussion

**Dr. Daniel C. Steelsmith, D.P.H.**, full time health officer, Dubuque—In considering the relation of the health department to the family physician, the local health department is first: The clearing house for all things medical pertaining to public health. Not only the physician makes use of this department as a clearing house for such questions as: "Does the diphtheria toxin-antitoxin contain enough protein to sensitize the patient?" In case of a diphtheria carrier we take a culture from the posterior throat and nares, sending the resultant report to the physician for his consideration. The physician often asks: "What would you recommend in treatment for this condition?" The parents and laity are also prone to use the health department for a clearing house, and frequently I am asked: "What milk shall I use for my baby?" Just as though we, personally, knew the physical condition of every baby in the town. We again refer these people to the physician of their choice for advice as to the milk the particular baby should receive. We also inform the mother that we are interested only in the cleanliness and wholesomeness of the milk supply, not what the individual baby should have in a specific case. Another instance, a lady telephones: "My neighbor's family on the bluff above me has the mumps; is there any danger of rain washing the infection down into my yard and causing illness in my child?" Then again, an important factor that is very closely allied with the practicing physician is that of our laboratory. No health department is complete without a laboratory department. By means of the laboratory, we assist the practicing physician in making an early, reliable diagnosis. We assist him not only in the diagnosis of those diseases that may be quite clearly identified from the laboratory findings, but in recognizing the fact that for the public good he should be extremely careful in making diagnosis of communicable diseases, thus stimulating him to greater diligence in the diagnosis of other diseases. I can say that this has a wholesome effect and is surely of benefit to the community and to the physician himself. There is one thing I would like to say in this connection. I am sure the men who attend the State Society meetings do not allow themselves to abuse the laboratory privileges, in this: That they would depend wholly upon the laboratory for their diagnosis. This cannot be done. The laboratory is merely an adjunct to the facilities which you all have at hand, it is only a help. You should use your good judgment, which I know you all do, but I occasionally find men who are using the laboratory solely to make their diagnosis and depending upon it too much. The next method by which the health department is in direct relation to the physician is through the diagnosis and treatment of cases as a consultant with the practicing physician. The health officer who does not assist the practicing physician in consultation in regard to diagnosis of communi-

cable disease is remiss in his duty. We might also add that in a questionable case, the health officer in some instances assumes the responsibility of making the diagnosis. He relieves the family physician of the responsibility of enforcing the quarantine and establishing isolation, allowing the physician to remain in the good graces of his patient, the family, the mother-in-law, the grandmother, and others. The fourth and really the closest relation existing between the local health department and the practicing physician is in the general education of the public in matters of preventive medicine, this relationship bringing much new business to the physician, business that the physicians themselves can obtain only through the process of education of the public. This new business I would divide into four groups: 1. The physician has the physical examination and treatment of referred school children. In most of the cities of Iowa, we have no school physician employed. 2. The correction or treatment of physical defects referred directly to him by a well organized health department. He would in any event get some of these corrections, but we are sending him new business daily. 3. Through the nursing staff of the health department and the health department itself, he has the opportunity of having referred to him many patients for periodical examination. I do not necessarily refer to the periodical health examination, but to examination of the expectant mother and other conditions that may come to the attention of the health department, and which are directly referred to the family physician. 4. New business that comes to the physician through the immunization against disease. Dr. Albert has given you specific ideas as to why the physician should do this work. It should not be done by the health officer. However, the latter can stimulate and bring about much interest in the work of immunization. I would ask any two men who are general medical practitioners of the state, what has been their average number of immunizations against diphtheria per year, prior to 1925? It has not been very high. It was the propaganda sent out by the Iowa State Health Department and the local health department which caused the physicians to immunize 3,500 to 4,000 children in Dubuque against diphtheria, the local physicians having these cases report to them for immunization during and after an educational campaign of two months, financed by the local board of health.

Dr. Earle G. Brown, secretary, Kansas State Board of Health, president, Kansas Medical Society, 1927—It was a pleasure to hear Dr. Albert's paper, and I wish to comment briefly on two or three of the points he has brought out. Public health education is very necessary and important. Medical men are looked upon as leaders in their respective communities, and if they do not accept the right that is given of educating the people in regard to public health, you well know the result. There are a number of methods of carrying out this work;

as Dr. Albert has outlined. The State Medical Society of Kansas is taking an active part in the program of health education. This work was begun last year and was started by the organization of the Bureau of Public Relations, which at the present time is furnishing for publication to forty-two periodicals and newspapers as many counties of the state, articles on health topics. We believe that this is a very valuable piece of work. The articles are sent to the periodicals under the name of the Kansas Medical Society. The comment Dr. Albert made regarding non-medical health organizations, brings to my mind a statement made by surgeon Allen J. McLaughlin, at the present time in charge of the Marine Hospital in St. Louis. Dr. McLaughlin called attention to the fact that the natural modesty of physicians had in a way prompted them in many cases to relinquish taking part in health education in their communities, but in recent years there has been a decided change, and the physicians were coming back into leadership in public health work. We do not believe lay organizations should assume entire responsibility in matters of public health education. We are firm believers in the value of lay organizations, but the natural leadership rests with the physician. Prevention is not only the work of the health department, but also the physician. Many of our county medical societies are taking an active part in the program for the eradication of diphtheria. In one county in the state last fall, the county medical society sponsored the immunization of the children. Eight stations were established and there the physicians administered toxin antitoxin free of charge to all children between the ages of six and ten years. In another county, the county medical society took an active part in the immunization program. The members of the county medical society advised the county commissioners that they would devote their services to immunizing the children if the county commissioners would furnish the toxin antitoxin, which the commissioners agreed to do. Here, again, stations were established over the county, and the physicians administered the toxin antitoxin to the children. As a follow up to this campaign, the physicians immunized more than 500 private patients in their offices. The physicians in one of the cities reported that they had immunized for pay as many children as the health department had immunized. It is true that the physician is entitled to receive compensation, but a start must be made in this work, and we believe it is perfectly satisfactory if a physician makes a reduction in his charge for this service, or in some cases even given his services free of charge. Dr. Steelsmith stressed the importance of the relationship between the health officer and the physician in regard to communicable diseases. In reporting such cases to the health officer, the physician should recognize the responsibility he thereby places upon the health officer. Sometimes there is the question of diagnosis, and we believe it is a



very fine thing where the physician and the health officer cooperate in seeing these cases together. Reports of cases to the health department places the responsibility for quarantine on the health officer and does not influence the people against the physician who reported the case. This is important, because sometimes the diagnosis of a communicable disease and quarantine means that the physician will lose that family. Close cooperation between the health department and the physician means that the public will benefit.

**Dr. Walter L. Bierring, Des Moines**—In welcoming the prodigal son back to Iowa after a number of years of sojourn in Reno, Nevada, there is a sense of pride to have one of our own Iowa men who is deeply concerned and interested in the health problems of Iowa, as health commissioner of this state. It is particularly gratifying to know also that it is the purpose of the state government to develop the health department and every phase of improvement for better health in Iowa to the very highest point of efficiency. I think we also should appreciate the manner in which our present commissioner has established contact not only with the physicians of Iowa, but with all other agencies that are concerned with rehabilitation movements and with preventive medicine in every particular. I call your attention to the health notes that are now appearing every month in our State Journal, which are giving to us the latest information about the development of conditions as they prevail each month throughout the state of Iowa. By means of the organized effort that is being made to relate closely our state society with the health department and with other similar agencies, we are going to accomplish something worth while within the next few years. The New York State Health Department has issued the statement that by 1930 there will be no diphtheria in the Empire State. I do not know what goal is set in Iowa, but the systematic manner in which the immunization program for diphtheria is being carried out gives us assurance that we have something like that to look forward to in Iowa within a comparatively short time. The comprehensive work that is being done by the allied associations, such as the Tuberculosis Association, the Heart Association, etc., has already accomplished great results. Iowa stands third on the list in the work directed against tuberculosis. The closer relationship that is being established between the physicians of Iowa and our Health Department is going to accomplish great good, not only for the profession, but for the general welfare of the state, particularly in raising the standards of medical practice in Iowa. With an organized profession headed by a health department that is thoroughly interested in the future welfare of Iowa, medical regulations can be developed of such high standard that will soon render all irregular forms of practice a matter of history.

**Dr. Albert (closing)**—I take this opportunity, the first I have had of appearing before the Society for

some half dozen years, to say that after a sojourn of several years in the West I am very glad to be back in Iowa. I want to say also that I am happy to be filling the position which I now occupy. We shall at all times welcome any suggestions and criticisms with reference to the conduct of the State Department of Health work and its improvement. I assure you that it shall be our endeavor, at all times, to ever keep in mind the proper interests of the medical profession of the state. I hope that during the coming years there may be many opportunities for effective cooperation between the profession of the state and the State Department of Health.

---

### MALTA FEVER\*

---

LEE R. WOODWARD, M.D., Mason City

Malta Fever was first recognized as a definite clinical entity by the British Army surgeons, among the troops stationed in the island of Malta. Bruce, in 1887, isolated an organism which he called the *Micrococcus militensis*, which he proved to be the cause of the disease. The disease produced so much disability that a government commission made a study of the situation in 1904 and 1905, and finally traced the disease to infected goat's milk. By prohibiting the use of goat's milk in the army and navy, the instance of disease was stopped. The disease has, since that time, been known to be endemic in Malta and in countries along the Mediterranean Coast, and in isolated foci in a great many sub-tropical countries, where it could be traced to importation of Maltese goats.

In 1903 the first case was reported in the United States, together with nine other cases, all imported, and all possibly due to goat's milk. In 1911 twelve cases were reported from the southwestern United States, in Texas and New Mexico, but a disease clinically similar, called "goat fever", had been known to exist in this territory for twenty-five years previously and all cases could be traced to possible infection from goat's milk.

In 1897 Bang discovered the *Bacillus abortus*, which is the cause of epidemic or contagious abortion in cows. It has since been discovered that hogs are rather widely infected with this bacillus, and it has occasionally been found in sheep and in horses. It was also soon discovered that the milk of cows suffering with contagious abortion contained this organism in large numbers, for a long period of time. Since cow's milk is used over a large part of the world as a food

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

for human beings, a great deal of work has been done to discover whether or not this organism is pathogenic for human beings. It was found that the blood serum of some human beings possessed the property of agglutinating the *Bacillus abortus* in high dilutions. In 1916<sup>1</sup> seven men and two monkeys were injected intravenously with large doses of *Bacillus abortus*, with absolutely negative results. In 1918 Evans<sup>2</sup> was prompted to a study of *Bacillus abortus* and *Micrococcus militensis*, by the finding of an agglutinin for *Bacillus abortus* in the blood of human beings, and for *Micrococcus militensis* in cows. She found these organisms were extremely closely related, and could not be separated by simple agglutination tests. Evans in her study separated this group of organisms into eight varieties, which are very closely related, the *Bacillus abortus*, a definite bacterium, appearing at one extreme, and the *Micrococcus militensis*, a coccus, at the other extreme. She re-named the whole group the *Brucella* group, and they are found in goats, cows, swine, sheep, and, in one instance, in horses.

Because of the close relationship of these two organisms, the *Micrococcus militensis* and the *Bacillus abortus*, and because the work of the British surgeons had proved without question that the *Micrococcus militensis* in goat's milk was the cause of Malta Fever, it was thought that the *Bacillus abortus*, found in cow's milk, might also be pathogenic for human beings.

In 1920<sup>3</sup> Bevan suggested that undulant fever, which existed in Rhodesia, was due to infection with the *Bacillus abortus*, of bovine origin. In 1924 Keefer<sup>4</sup> reported a case arising in Baltimore, which could not possibly be due to goat's milk. In 1925, twenty-two cases were reported in Italy, and in 1926 twenty cases were reported in the United States and thirty-five cases in South Africa, none of which could possibly have been due to goat's milk. All of these cases had consumed raw cow's milk, which was proved to contain the *Bacillus abortus*, and from all of these patients either an organism was recovered from the blood, which in every way resembled the *Bacillus abortus* found in the milk, or the serum of the patients was proved by agglutinin absorption technique to contain agglutinins for the *Bacillus abortus*, rather than agglutinins for the *Micrococcus militensis*.

Theobald Smith,<sup>5</sup> early in 1926, published his results of work with organisms of bovine and human origin, and he found some difference in the pathology of guinea pigs injected with the two organisms. Both organisms produced endo-

thelial proliferation in the lymphoid tissues, especially the spleen and lymph glands, but the bovine lesions are smaller, have few polymorph-nuclear cells and no necrosis. The lesions from the organisms of human origin were larger, with central necrosis and suppuration. He holds the evidence is still inadequate that the bovine *Bacillus* is pathogenic to the human being.

Huddleson,<sup>6</sup> early in 1926, reported three cases occurring in workers in a laboratory, who apparently got their infection by the handling of freshly isolated cultures from cows, but it remained for Carpenter,<sup>7</sup> in October, 1926, to complete our evidence that the *Bacillus abortus* is pathogenic for the human being. He recovered from the blood of one of his patients, an organism which was identical with that obtained from a suspected cow's milk. He injected two heifers with the organism which he recovered from his patient, and produced abortion in both. He recovered the organism from the uteri of these heifers, and inoculated it into guinea pigs, producing typical lesions of the bovine type. This final evidence of Carpenter seems conclusive, and Evans<sup>8</sup> says the case is now proven.

There still are some problems to be worked out in regard to the transmission of the *Bacillus abortus* from cow to man. It is hard to see why the disease is so infrequent in the human being, when it is definitely known that contagious abortion is widespread all over the world among cows, and that the raw milk, heavily infected with *Bacillus abortus*, is drunk, apparently with impunity. It is hard to explain why only one person as a rule contracts the disease, where it is definitely known that many have consumed the infected milk. Few instances are on record where more than one has contracted the disease. In Italy two instances are recorded, in one of which sixteen cases of undulant fever in human beings were traced to one aborting cow, and in another instance five cases developed among those attending an aborting cow. In Utah on one ranch three cases arose in one family, from a herd which was known to have contagious abortion in it.

There is a tremendous amount of work being done by the veterinary schools, in collaboration with medical schools, and the Journal of the American Veterinary Medical Association for December, 1926, has a Bibliography of Bovine Infectious Abortion, which lists ninety-seven articles which appeared in 1925 on this subject.

While the disease has apparently been very infrequent, workers are sure that it is much more frequent than we realize, and is going unrecog-



nized. The diseases which are most frequently confused with undulant fever are malaria, rheumatism, typhoid fever and tuberculosis, and without question many cases of undulant fever, here in the temperate climates where we thought it did not exist, have been incorrectly diagnosed as one of these four other conditions.

There is a considerable amount of evidence that the infection is not as infrequent as it seems. As early as 1913 Larsen and Sedgwick,<sup>9</sup> in Minneapolis, found 17 per cent of the children's sera reacted positively to *Bacillus abortus*. Young<sup>10</sup> in New York State found eleven out of 110 sera reacted positively. Hull and Black<sup>11</sup> in the Illinois State Laboratory, in examining sera sent in for Widal tests, found five of sixty-nine reacted positively to *Bacillus abortus*.

It is known that once a goat is infected with *Micrococcus militensis*, it carries the organism in its milk the rest of its life and the numbers are greatly augmented with each lactation, but herds of goats that are infected rarely or never abort. However, when the disease first gets into a herd, which has been free of infection, frequent abortion is the first evidence that infection has occurred, so in this regard the two organisms are similar in that they both do produce abortion. It has been wondered if the organisms would produce abortion in the human being, but the evidence is all to the contrary. Careful study of the native population of Malta revealed that abortions are infrequent, and while British troops were suffering from the disease, 30 per cent of the males contracted it and 71 per cent of the women contracted it, but there is no record of any abortion occurring.

It is assumed that the mode of transmission is drinking the infected milk, but there is some evidence that it may be acquired by abrasions in the hands, and some observers have suggested the bite of some insect as the means of transmitting the disease from cows to men.

While the course of the disease is not typical, yet there are certain features of the disease which clinically should arouse your suspicion and direct your attention to having the proper laboratory tests made to confirm or exclude Malta Fever. The onset is insidious, a general feeling of malaise, followed by rheumatic pains, fever and profuse sweats. While other symptoms supervene, these three symptoms are the three that should make you think of undulant fever. The patient has a protracted fever which you cannot explain, with rather vague rheumatic pains, and profuse drenching sweats. It may possibly be acute rheumatism, typhoid fever,

malaria or tuberculosis, but I have never seen such drenching sweats without more severe pain if the case of rheumatic fever, or without very definite pathology in the lungs if it be tuberculosis. Typhoid fever is more difficult to exclude. Malaria never occurs in this latitude. The course is protracted, the shortest course reported being six weeks and the longest, about two years, with an average course of three to four months. During this time the fever is of a remittent type, which goes in definite waves, there being periods of apyrexia, followed by relapses of fever, hence the name of undulant fever. During the period of fever, chills are frequently complained of. The pulse is relatively slow, usually between 70 and 80 and rarely over 90. The patient complains of severe occipital headaches, insomnia and marked irritability. There is very marked loss of weight. The rheumatic pains are very indefinite, occasionally there is a definite arthritis with swelling of the joints, or a definite neuritis, frequently of the sciatic nerve. There is also a frequent orchitis, with swelling of the testicles. Physical examination is remarkable in being entirely negative, the only positive finding is an enlarged spleen in a small per cent of the cases.

While the blood counts are not absolutely diagnostic, with the triad of symptoms mentioned, the blood count is of great significance. There is usually no marked change in the red cells or hemoglobin, but most authorities agree that the white cells are either normal or reduced. Keefer is the only one who has reported an increase in the total number of white cells, his highest count being 12,000. The counts in all of the several cases reported vary from 3000 to 7000. There is a decrease in the number of polymorphnuclear cells, the lowest reported being 40 per cent and the highest 61 per cent. There is an increase in the large mononuclear and transitional elements. Keefer's case had 22 per cent, Castellani reported up to 80 per cent. Other cases reported vary from 2 per cent to 37 per cent of large mononuclears. The small lymphocytes have varied from 25 per cent to 56 per cent, most of the cases having around 40 per cent. The clinical diagnosis can be confirmed positively by blood culture or agglutination tests. The disease is in every instance a bacteremia, and the organisms can be recovered from the blood during the entire febrile course of the disease, and in some instances have been recovered from the blood several weeks after the patient has been temperature free.

In making cultures they must be allowed to

grow for at least a week, because the colonies do not appear until about the sixth day, and many cultures have been reported negative because they were not allowed to grow long enough. The agglutinins for the specific organisms appear in the blood by the fifth day, and persist for seven to ten years. These agglutinins are in very concentrated form and some sera have agglutinated in dilutions as high as 1 to 20,000. The test is considered positive when the serum agglutinates the organism in dilution of 1 to 100, heated for one hour at 56°. The agglutinin absorption technique is used to differentiate between the abortus and militensis varieties of the infection, as both organisms are agglutinated the same by the ordinary technique.

The disease varies markedly in severity from the malignant type which is fatal in a few days, to the ambulatory cases, which run an unexplained fever for months. The prognosis is good, the mortality being about 2 per cent, but the long course of the disease, from three to four months, is the most discouraging feature. The treatment is entirely symptomatic, acriflavine has been tried in herds of cows which are afflicted with contagious abortion, and it has apparently improved the situation, but in the few human cases upon which it has been tried, it has failed. Mercurochrome has been tried in a few instances, but the results here have also been rather indefinite, and the reactions are too severe to justify its use.

#### Case Report

Mr. H. S., a married, white, butter maker, forty-nine years of age, entered the hospital on December 3, 1926, complaining of fever and profuse sweats. The past history is negative except for diphtheria in childhood leaving him with damaged ears, so that he is very hard of hearing. The family history is entirely negative. The patient first began to feel ill about the middle of October. On November 2nd, he had a severe headache, which was very unusual for him. Soon after this, he began to notice chills, fever, and sweats. Then he noticed pain between the shoulders, up the back of the neck and into the back of the head. He was able to do part of his work until November 27th when he felt so ill that it was necessary to go to bed. Since then, he has been having an irregular fever which reached about 102 at the highest, with extremely profuse sweats.

On physical examination, the patient is a well-developed and well-nourished man and does not appear to be acutely ill. The skin is negative except for the profuse perspiration, no superficial glands, reflexes and sensations all normal, teeth all extracted, throat is clear, chest and heart negative, pulse about 70 to 80, blood-pressure 120/80. Liver and spleen are normal, but there is a distinct tender-

ness in the left upper quadrant of the abdomen. The blood is RBC 4,400,000; WBC 4,000; hb 80 per cent; polys 54; small lymphocytes 39; large monos 4; Widal and blood culture negative. Urine—acid, Sp. gr. 1020, no albumin or sugar and occasional leucocytes. A second blood count made on December 9th showed WBC 4,500; polys 40 per cent, small lymphocytes 44; large monos 15; Wassermann negative. The patient ran a remittant type of temperature in the hospital, the highest being 102. This gradually subsided and reached normal on December 9th, but again went up on the 10th, reaching 102 on the 11th, and again subsiding to normal on the 12th, where it remained till the 16th, when he was discharged. Blood was sent to the state laboratories on December 10th for culture and agglutination tests. It agglutinated *Bacillus abortus*, dilution of 1:1280. Culture was negative. After the positive agglutination test for Malta fever, the patient told me that in the middle of October, one of his customers who had been bringing in a great deal of cream began to bring very little, and on being questioned about it, volunteered the information that his herd had infectious abortion among them, and he was going to sell them and get a new herd. As Mr. S. had the practice of tasting all the fresh cream he purchased, this probably is the source of his infection. The herd had been sold, so this milk could not be examined.

#### SUMMARY

Malta Fever is now proven to be caused by *Bacillus abortus* of bovine origin, and exists in temperate climates.

Clinical symptoms are malaise, followed by rheumatic pain, fever, and profuse sweats.

Diagnosis can be proved by blood culture and agglutination test.

#### BIBLIOGRAPHY

1. Discussion on Infective Abortion in Cattle and its Relation to Malta Fever in Man; Proc. Roy. Soc. of Med., Nov., 1925, vol. xix, No. 1.
2. Evans, Alice C.: Further Studies on *Bacterium Abortus* and Related Bacteria, Jour. Infect. Dis., 22:580 (June), 1918.
3. Bevan, E. W.: Infectious Abortion in Cattle and Its Possible Relation to Human Health, Tr. Roy. Soc. Trop. Med. and Hyg., 15:215 (Nov.-Dec.), 1921.
4. Keefer, C. S.: Report of a Case of Malta Fever Originating in Baltimore, Md., Bulletin. Johns Hopkins Hosp., 35:6 (Jan.), 1924.
5. Smith, Theobald: The Relation of *Bacillus Abortus* from Bovine Sources to Malta Fever, Jour. Exp. Med., 43:218-222, (Feb.), 1926.
6. Huddleson, L. F.: Is *Bacterium Abortus* Pathogenic for Human Beings? J. A. M. A., 86:943 (March 27), 1926.
7. Carpenter, C. M. & Merriam, H. E.: Undulant Fever from *Brucella Abortus*, J. A. M. A., 87:1269 (Oct. 16), 1926.
8. Evans, Alice C.: Human Infections with the Organism of Contagious Abortion of Cattle and Hogs, J. A. M. A., 88: 630 (Feb. 26), 1927.
9. Larsen, W. P. & Sedgwick, J. P.: The Complement Fixation Reaction of Infants and Young Children, Using *Bacillus Abortus* as Antigen, Am. Jour. Dis. Child., 6:326 (Nov.), 1913.
10. Young, C. C.: Personal letter to Alice C. Evans, (Aug. 1), 1926.
11. Hull, T. G. & Black, L. A.: Undulant Fever as a Public Health Problem, J. A. M. A., 88:463 (Feb. 12), 1927.

#### Discussion

Dr. A. V. Hardy, Iowa City—This paper marks a forward step in medicine in Iowa. Dr. Wood-



ward has shown that we have occurring in the state a disease which previously was not known to be present. It is interesting also that as recently as November, 1925, the first cases of another disease, tularemia, were recognized. This seems a coincidence, since the diseases are in so many respects similar. Both are caused by organisms which morphologically, culturally, and in their staining reactions are closely related. They stand entirely alone in the frequency of infections among laboratory workers. This is probably due to the fact that in both, the organism can penetrate apparently normal skin. Further, there is some cross agglutination, that is, the serum from a case of tularemia will also agglutinate weakly the organisms of Malta fever. Finally there is reason to believe that both have been endemic in the state for many years and are, but now, being recognized. There is no definite agreement as to the nomenclature which should be used for the variety of organisms which cause Malta fever. It is not even agreed whether they should be classed as cocci or as bacilli. I feel that the names *Micrococcus melitensis* and *Bacillus abortus*, which have been selected by Dr. Woodward, may convey the impression that there is a marked difference between the organisms. Such is not the case. Morphologically they cannot be differentiated. I believe that a more correct idea would be conveyed, if the so-called *Bacillus abortus* were classed as a variety of the *Micrococcus melitensis*. As Dr. Woodward has shown, the organisms which cause the infectious abortion of cattle, hogs and horses may also cause Malta fever in man. It is important, therefore, to know the prevalence and distribution of the infectious abortion. In a communication from Dr. McNutt of Ames, he states, "The disease is present in every county of the state and probably in every township." We must recognize therefore, that there is a possibility of Malta fever being contracted in all parts of the state. As has been pointed out, the manner in which Malta fever is contracted is still a problem. I believe that we must bear in mind that it may be acquired through the handling of infected meats or dairy products. In the case reported the possibility of the infection having gained entrance through the skin of the hands while the man was handling the cream or butter, must be considered. This possibility may be appreciated when it is known that in the separation of cream from milk, nearly all of the organisms of Malta fever are found in the cream. The text-book description of the Malta fever which has been acquired from goat's milk, does not hold for the disease caused by "*Bacillus abortus*." It has been shown experimentally that the disease as produced in monkeys by this organism, is much milder than that caused by *Micrococcus melitensis*. In making a diagnosis of Malta fever, the most important thing is to have it in mind. This fact was impressed upon me by the first case of the disease which I saw. A case was admitted

to the hospital with the non-committal diagnosis of "Fever, for study." As I look back I see that the patient had a typical text-book type of Malta fever. There was the undulant and remitting fever, the profuse sweats, the muscular pains, the enlargement of the liver and spleen, and the leucocytosis, with 40 per cent large mononuclears. These certainly should have suggested the diagnosis, but though this patient was seen by both the medical and surgical staff, none was made until the organism was recovered at post-mortem. The case was the first one of Malta fever which had been seen in the hospital and no one even thought of the disease. Had someone done so, the diagnosis would have been made. In the differential diagnosis I would add two other conditions which must be borne in mind, an undifferentiated septicemia and tularemia. I believe, however, that typhoid has been the diagnosis most frequently given to Malta fever. In the differentiation of these diseases the agglutination test is of great importance. At the state laboratory, blood specimens sent for microscopic agglutination are now tested against *Bacillus typhosis*, para typhosus A, para typhosus B, *B. melitensis*, and in the hunting season, *B. tularensis*. Though these diseases may be confused clinically, they are easily differentiated by the agglutination test. I must point out, however, that this test cannot satisfactorily be done on the dried blood sent for Widal. There are disadvantages in doing a venepuncture, but I submit that the value of this multiple agglutination in undiagnosed fever is such that it should be made in every case. In sending specimens the Wassermann outfits may be used, but the test desired should be clearly marked and the tube addressed to the State Bacteriological Laboratory. Now, therefore, we know that Malta fever is present in the state and have reason to believe that individuals in all districts are exposed. Our knowledge of the disease, however, is very incomplete. But one year from the time that tularemia was recognized in the state, we knew it to be present in at least ten scattered counties and had a confirmed diagnosis on thirteen cases. In the same way, the prevalence, distribution and sources of Malta fever may be studied. To do this there must be a very close cooperation between the laboratory and the physicians. The laboratory can do nothing without your cooperation. It is for you to think of the disease and to give us the opportunity of doing the differential laboratory examination. If this is done, I feel quite confident that a year from now we will have collected much interesting information.

**Dr. Murdoch Bannister, Ottumwa**—About five years ago a packing house employe had a sore finger which was injured and would not yield to ordinary treatment, and in the secretion from this finger was found the *Bacillus abortus*. The finger did badly, the bone became necrosed, and I had to amputate it, after which the patient entirely recovered. I would like to ask what the local re-

actions of this bacillus are. It may be that there were other infections present.

**Dr. James H. Gasson**, Bedford—I want to say a word in regard to the men who gather up cream in the various towns. In the vicinity of Bedford we have hide dealers who also buy butter, cream, and eggs, and as there are several infections to be found in hides it seems to me that dairy products should be gathered up by some one other than hide buyers. I believe that the practice referred to furnishes a possible source of scattered infection.

**Dr. Woodward** (closing)—I am very glad that the question of the local reaction was brought up, because it is a point I wish to speak of. There is apparently a distinct difference between tularaemia and Malta fever. I have not personally run across a case of tularaemia, but from descriptions of the condition I have seen it is evident that in every instance there is a prolonged local reaction at the site of entrance of the bacteria and later the case becomes one of bacteremia. I have searched the literature very carefully in an attempt to ascertain if there is any record of these findings in the cases of Malta fever reported. While it is assumed that the portal of entry has been the skin rather than the intestinal tract, yet in no instance has there been a local reaction at the point of entrance of the bacteria. There have been two very definite cases among packing house employes, who it was clearly shown, received the infection from handling the meat of infected hogs. As to the question of milk supply, the reason for all of this study is because cow's milk is used largely as food for human beings. Naturally children use it, and the first work was done by Sedgwick of Minneapolis, to see if infected milk was dangerous to children, and he found that the sera reacted positively. Boiling the milk renders it absolutely safe. The presence in herds of contagious abortion is one of the great arguments for pasteurization of all milk for human consumption.

## TULARAEMIA IN IOWA IN 1926

A. V. HARDY, M.B., (Toronto)

Acting Director, State Hygienic Laboratories, State University of Iowa, Iowa City, Iowa

During the fall hunting season of 1926, several cases of tularaemia were diagnosed in Iowa. For this reason, a consideration of our present knowledge of the disease in the state seems highly important. Its known distribution will be shown, its prevalence discussed, certain clinical features in the cases which have occurred will be mentioned and finally, suggestions will be offered of the means by which additional knowledge may be accumulated.

**Distribution**—In ten scattered localities the disease has been contracted and diagnosed. On

the west, Council Bluffs, and on the east, Davenport, Clinton, and Ft. Madison are included. Taylor county in the south, Clay in the north, and four central ones, Benton, Poweshiek, Iowa and Monroe have all had cases. This data does not justify any final conclusion of the actual distribution of tularaemia in the state, but it does indicate that it is widely spread, perhaps in every county.

**Prevalence**—In November, 1925, tularaemia was first recognized in Iowa by<sup>\*</sup> Drs. Whiteis and Anthony of Iowa City. <sup>1</sup>However, since that time Dr. E. B. Williams of Montezuma has presented evidence showing that the disease occurred as early as June, 1914. <sup>2</sup>The disease therefore has been present in the state for at least thirteen years. Its wide distribution gives further weight to this evidence, for once introduced it would naturally spread slowly. We are dealing, not with a new disease, but with an old undiagnosed one.

During 1926 the diagnosis has been confirmed at the state laboratory in eleven cases. Blood has been received for this examination from a total of thirty-two patients. If tularaemia has been present for so long and unrecognized, is it not probable that these figures indicate only the frequency of its consideration in a differential diagnosis, rather than the true prevalence of the disease? One year from the time that the disease was recognized in the state nine positive diagnoses were made at the laboratory in a period of six weeks. This demonstrates that the infection in man, at least during the hunting season, is not uncommon.

To determine, however, the distribution and prevalence in man, is a part only of the problem. To efficiently prevent the disease, it must be known in what districts animals are infected. Rumors have come to us that in some places many rabbits are found dead. There has been no opportunity either to confirm this rumor, or to determine whether tularaemia was the cause. The diagnosis of the disease in animals is not difficult, so it would be possible to collect evidence which would show the areas in which the disease is present in rabbits, and hence, probably endemic in man.

**Clinical Features**—Up to the present time, thirteen cases have been diagnosed in the state. In eleven of these, a brief clinical history has been sent to me by the physicians. The season of rabbit hunting has been the season of tul-

1. Tularaemia in Iowa (W. R. Whiteis and E. J. Anthony)—Jour. Iowa Medical Society, 16:188-189, April, 1926.

2. Letter to Editor (E. B. Williams)—Jour. Iowa Medical Society, 17:101-102, March, 1927.



araemia. In all but two of the cases the diagnosis was made between the middle of November and the middle of January. The two occurred in July. Nine gave a history of having either cleaned rabbits, or prepared them for cooking. Only three knowingly injured themselves. Two stated that the liver of the animal was so covered with white spots that the body was thrown away. In one case the portal of entry for the infection was the eye. The clinical picture of the diagnosed cases has been quite typical. There is the local indurated, indolent ulcer, swelling of the regional lymph glands, fever, marked prostration, and slow convalescence. Recovery is the rule, but there has been one death in Iowa.

*The Obtaining of Additional Knowledge*—Of immediate importance is the determining of the true prevalence and distribution of the disease. This involves the diagnosis and reporting of all human cases, and a study of its occurrence among rabbits. Until this has been done, control measures will be undirected. The problem may be attacked in several ways, but in each, the cooperation of the laboratory is important.

The diseases with which tularaemia is most likely to be confused are typhoid, paratyphoid, miliary tuberculosis, Malta fever and an unclassified septicaemia. Clinically the local sore and swollen regional glands are of greatest importance, but the absence of these does not rule out tularaemia. Two laboratory examinations are indicated. Early in the disease blood cultures may be taken. These are frequently positive, but one negative result must be considered of little significance. By the end of the second week, a positive agglutination test will be given. This, even in a low dilution, is conclusive. With the same specimen of blood, and at the same time, the tests may be made for typhoid, paratyphoid and Malta fever. At the state laboratory, each specimen of wet blood sent for Widal is now tested with five different organisms, typhoid, paratyphoid A. and B., *B. melitensis* and *B. tularensis*. These tests cannot be done on the dry blood. At present the Widal's received are almost all the dry blood. Since tularaemia and Malta fever, as well as typhoid and paratyphoid, are present in the state, it cannot be too strongly recommended that this multiple agglutination test be done on all cases of prolonged undiagnosed fever. Three to five cubic centimeters of blood may be sent in a Wassermann outfit. The test desired must be clearly marked and the tube addressed to the bacteriological division. For blood cultures, outfits are supplied from the lab-

oratory upon request. These examinations are all free of charge and it is felt that they might well be more frequently requested. The problem of the actual prevalence of both tularaemia and Malta fever would be solved rapidly if from every case of prolonged fever, blood were sent for this macroscopic agglutination test.

The laboratory is also essential in the determining of the prevalence of the disease among rabbits. The miliary lesions of the liver and spleen in tularaemia are typical. This makes the diagnosis easy, but great care must be used in making the examination. In no other disease is the infection so easily acquired by handling infected tissue. The organism may enter through the apparently normal skin. For this reason the opening and examining of animals outside of the laboratory cannot be encouraged, but must be discouraged. However, if the rabbit is sent to the state laboratory, the examination may be done with comparative safety. Through the examination of a sufficient number of suspected animals the true distribution of the disease would soon be shown.

Without a laboratory, progress could scarcely be made, but without the full cooperation of all physicians little can be done. The clinical features of the disease are not widely known and every possible avenue should be used to present the essential facts of this newly recognized and interesting disease. In this, from the laboratory, little may be done, but it falls rather to the local medical societies. Wide interest in the problem need but be stimulated, and then, through cooperation between the physicians and the state laboratory, it will rapidly be solved.

#### CONCLUSIONS

1. Tularaemia is widely distributed in the state.
2. Little is known of its prevalence in man or in animals.
3. A macroscopic agglutination test on all prolonged undiagnosed fevers is recommended.
4. The distribution of the disease in animals should be studied.
5. A closer cooperation with the laboratory is desirable.

---

#### ANNOUNCE ANNUAL MEETING

The annual meeting of the Southern Minnesota Medical Association will be held in Austin, Minnesota, September 30 and October 1, that is, the meeting will open at one o'clock on September 30 and close with the luncheon at one o'clock on Saturday.

## SOME VIEWPOINTS ON SENILITY\*

RALPH LOVELADY, M.D., Sidney

I suppose that I should start out with the old statement that "A man is as old as his arteries", you have all heard or read this at least a thousand times. I believe it and I am sure that the average man on the streets knows it. We all know that a man is as old as his cardiovascular system, irrespective of his age in years. I have at this time under my care a brother and sister, the lady is 103 years, an old maid at that, and this age has been carefully checked, she is the oldest of a family of ten and her "kid" brother is eighty-six.

Seventeen years difference in their ages but their pulse rate, reflexes, vision, teeth, appetite, mentality and urinary findings are exactly alike. Both read quite well, without specs, and both are quite enthusiastic radio fans. To me they have simply grown old, very gracefully and happily evaded the most difficult times in life, the subject of this paper.

As a man starts down the other side of life's journey he undergoes an involuntary change in his whole organism, not the stomach, the heart, or the head or the muscle system but each system slips a bit, some more rapidly of course than others, due as you well know to the demand that has been made on that particular organ in the past years, together with the damage from disease, exposure, liquor, women, etc.

This very point that certain systems, or yet better a portion of certain systems go to pieces earlier than others has made many an attorney rich and tied up many an estate.

This condition we term senility begins gradually, so gradually that even closest relatives and friends fail to recognize it.

The earliest things noted are the external things as the thinning and greying of the hair, the fading in the color of the skin, or it may become wrinkled and loose, the arcus senilis, the pulse beat in the temporal arteries, a slight deafness, failing vision, bent back somewhat painful to motion, quite frequently a tremor.

He notices increase in the amount of urine and the fact that he cannot sleep the night through because of this, that he either takes on or loses some flesh, that he wants to get to bed earlier at night and perhaps enjoys an after dinner siesta. He makes numerous little mistakes in the ordinary routine of his business. He is penurious, money matters bother him

greatly, usually he feels an impending poverty, the fact is he has a dose of the dumps most of the time, and he finds it hard to take up or get himself straightened out on the newer things of life, he just don't get them clear in his own mind, so is quickly discouraged and says they are all not good and is against them, you have often heard the statement that "he is old and has foggy ideas".

The family notices that he is more fault finding, and unreasonable about the little things of life, he is suspicious of his friends and quite readily takes up with strangers, often to his sorrow as he is often easy prey to high pressure salesmen. The recent inflation of things in this section brought in hundreds of stock and bond salesmen and a review of the buyers of some of this worthless stock show a large proportion of older fellows as purchasers, not all making bad investments and buying blue sky, but a large percentage of the older men did this thing.

They notice his forgetfulness the first, he forgets the little favors and requests made of him, I mean by that the simple things as filling the furnace, bringing home bread or groceries from town, to change his shirt, to clean his feet on entering the house, to wash and bathe, the little courtesies as tipping the hat and the like. The old clothing is good enough for him and he does not want the new, however he easily falls for the new clothing and really goes to extreme in dressing, by spells, some few into the Beau-Brummell class, for a short period of time only.

They notice he tells the same story over and over again. He gives an employe the same instruction several times, and then neglects to see that the duty has been performed, his attention is hard to hold on a given subject, he is unreasonable and fault-finding, he keeps harping on a certain idea or thought and is neglectful of the usual details of business.

Things he has been in the habit of doing for a long period of years, as writing his name, playing cards or golf and the like he does fairly well, however he usually later loses interest or becomes cross and so irritable that he can find no one to play with him.

I have taken up two sides of this condition. Really the history side, the story the man and family tell you. There is a third side, a medical side, I nearly said a third and fourth for there is a medico-legal side for these fellows are always in trouble, real or imaginary, and if none in his life time he has left a will that he has written in his later years that does not just ring true, he has been over generous with one child

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



and perhaps cut one out and the will is contested and again my friends the lawyers grow rich, not over points of law as they say, but because of disease, senility.

These old fellows all follow a fairly well marked road down, some, faster than others, some a shorter road, but they all follow a road with certain markings that come in a fairly uniform manner.

They are as follows in their order of appearance.

1. A narrowing of the range of interests.
2. Failure of memory.
3. Changing of the emotional conduct.

Under this first there develops an indifference in their relations to others, especially in their attitude towards their immediate family. They are insistent on details of no great importance. He mostly becomes seclusive, and quite often shuns the society of his former friends and close associates. We find the old fellow not getting down to work as early and quitting much earlier in the evenings. He is irritable, cross, penurious, neglectful of his personal appearance. There is a progressive impairment of his capacity for both physical and intellectual work, intricate operations are very difficult for him and he is easily discouraged by his failure to perform them.

2. Under failure of memory we find the usual diagnostic signs of senility. The average diagnosis of a senile dement is made from this one symptom alone.

All these old people show memory symptoms early and the earliest things to fail are the more recent happenings, the things of yesterday so to speak, they do not readily recall the names of recent acquaintances, or the details of some business transactions, he fails to recall the day of the week or date of month. In certain cases they will forget by after dinner the things that took place at the breakfast table. All these symptoms relative to the failure of memory are too well known to all of you to dwell upon at length, the old fellow soon begins to live in the past, to dwell on his childhood or early married life, the things he has done, and at times he even exaggerates at length, the old civil war soldier is an ideal example, he first tells of some battle he has heard of that occurred close to him, or even while he was away from his outfit, perhaps in the hospital at the time; as time goes on he soon begins to tell that he was in that battle and still later may tell that it was his individual efforts that the battle was won. He is not telling this to lie, he just is senile.

Now the third, or change in his emotional conduct, first I want to call your attention to the fact about this time in certain few of these old fellows a sex element enters into his personality. The male much more so than the female, in fact it is quite infrequent in this latter sex. Sexual desire is increased in these certain few and they often make improper approaches to younger women and even girls, they even take improper liberties with small children and here even their own grandchildren. Many a rich old widower has taken up, or been taken in by some pretty young thing, many times to the disgrace of his own children, to end up by here divorcing him and getting a portion of his savings the size of this depending on the keenness of her attorneys. These cases of marriage are not on a love basis but the old fellow thinks in terms of sex and slips. I am not going to enter into any argument as to the why of it whether it is increased activity or a prostate or hormone from some place. It actually exists to his mind and while the act is very unsatisfactory to the female it is perfectly o.k. with him, so it is not altogether a delusional thing.

We do find some of these old fellows with perverted sex ideas which come along later in which they claim marital infidelity on the part of their mate and tell all kinds of astounding and revolting stories, but even go so far as to start divorce proceedings, and if these self-same attorneys are of the wrong kind he loses and pays heavily.

Bresler found that in only a small percentage of instances have seniles accused of offenses ever been previously charged with crime of any kind, and where this has occurred the crimes were not of a sexual character.

Nearly all these old people are fearful that some financial misfortune will overtake them, they worry about all money matters, will bear down on the ordinary household expenses, unreasonably deprive the family of the ordinary standards of living. He even is suspicious of being robbed, victimized, he loses confidence in his own judgment relative to his finances and is always talking this over with his attorney or banker; for instance he makes a loan, he is very slow in letting it out, very careful that it is properly secured, and then constantly worries whether or not it will ever be paid back and will he have to foreclose or start legal proceedings to recover. Money and money matters are paramount and also a torture to him.

Sympathy is usually lacking in these people, I mean the normal sympathy he or she usually ex-

hibited, say at the sick bed or death, these things fail to make any impression on them, they seem indifferent to calamities.

They are often obstinate, self-willed, stubborn and have fits of temper and destructive later.

Now with all these symptoms and conditions of mind he still may retain certain perfectly normal function of some of this grey matter, he may have a dozen different symptoms that point to a involutionary change in his brain and still remain quite clear and active on one or more subjects and retain this condition to the end, and it is here that the doctor and the lawyer meet, and the courts decide.

There is hardly a year passes but that a doctor is called upon to testify in some cases as to the sanity of some old fellow he has had under his care, and often there are several doctors called and they all under oath testify to different views, the old fellow is insane on the one hand and perfectly sane and rational on the other. Now how is any court to decide when doctors disagree. The ability and reputation of these doctors considered. If the estate is large eminent nerve specialists are called in and they disagree according to the side, or viewpoint, paying the bill.

Does the public think we are all lying and are simply looking at the dollar that we will receive for such testimony. I think not, because the line between the senile and the senile dement is a very broad band and the two conditions so dovetailed into each other that it is impossible in nearly every instance to exactly say where the sane ends and the abnormal begins.

The Iowa law is very clear in this and says, under contracts, "Idiots and lunatics cannot bind themselves by contract, because they have not the judgment and discretion to consider the consequences of their actions and to protect their interests. Contracts made with such persons after they have been adjudged insane according to law are generally regarded to be absolutely void. But they may be set aside, in the furtherance of justice, when it is shown that one of the parties was actually insane when he entered into this contract."

To the man on the street "A man is as old as his arteries", to the law he is as old as "his grey matter properly functions" and it is up to you as medical men to decide this point for the law, that there are no hard and fast set rules and that brains do not go to pieces in the senile in its entirety but piece by piece so to speak.

The problem which confronts us, as medical men, and this is both a difficult and urgent one, is how best to prolong this period of good health,

reach this maturity and then not be a burden to the relatives, friends and state.

### Discussion

**Dr. P. B. Cleaves, Cherokee**—We all have these problems to face in testifying in court with reference to seniles, and there is one thing that should impress itself upon the mind of the prospective expert witness: That in the senile the things that produce the most impression on his mind are those which he has carried longest. I once knew a man who was a senile dement for five years. Finally he lay in nearly complete coma for five weeks, and his last words were these: "She says, you ain't man enough to do it, and I stepped to the door and I throwed that plug of tobacco away and I ain't touched it since." The point being that the thing which produced the greatest impression on his youthful mind was the thing he carried the longest.

**Dr. Charles H. Magee, Burlington**—I was listening to Dr. Lovelady's paper and it was written in elegant and vigorous English. As a literary product I was charmed with it. It seemed to me for a while that he was personal, but when he said that the senile mind could play cards as good as ever I knew he didn't mean me.

---

### CASE REPORT

JAMES E. DYSON, M.D., Des Moines

I wish to report twin boys, Lyle and Lynn L., age one year, who had an identical pseudo leukemic anemia (Von Jaksch). They were brought into the hospital with a history of being the second pregnancy of a healthy mother. The father was living and well. Birth weight was six pounds and five pounds and six ounces, respectively. They nursed eleven months. At one year were fed Eagle brand, four ounces every four hours, some vegetables, toast, and orange juice. Both babies had pneumonia at six months and had had cough, slight fever, and looseness of the bowels since. They had not gained in weight the last few months. Each had their first tooth at eight months.

Examination on entrance: Lyle; age one year; weight thirteen pounds; emaciated and pale; had very large abdomen; venus dilations on the abdominal wall; the liver edge was felt four fingers below the right costal margin, hard and smooth; spleen margin felt three fingers below the left costal margin, hard and smooth; heart area was wide and square to the left; heart rate 150 per minute. Rales were heard in the left lower axillæ, rales and dullness in the left lower lobe posteriorly. Throat was inflamed; ear-



drums were red and bulging; temperature was 101.5. Lynn, weight eleven pounds; similarly emaciated and pale; very large abdomen; liver edge was four fingers below the right costal margin; spleen was felt three fingers below the left costal margin, both hard and smooth; heart area was square, pulse was 150; rales in the right axillæ and the base of the right lung pos-



Twins first week in hospital

teriorly; throat was acutely inflamed; ear-drums were red and bulging; temperature was 102.5.

They both progressed similarly while in the hospital, losing weight, running fever of 101 occasionally 102 to 103. Although there was some cough, the lung condition did not seem acute and Von Pirquet tests were negative. The ear-drums were lanced and a muco-purulent otis media was drained. Their abdomens remained large and thin-walled. The dilated venus plexes over the upper part of the abdomen increased in prominence. The large hard liver and spleen were quite constant in size and shape. There was occasional vomiting of food. The bowel movements were fairly normal.

On entrance, the laboratory examination of the urine showed pus from both cases, no albumen or sugar. The blood examinations were: Lyle, hemoglobin 50 per cent, red blood count 2,520,000, white blood count 9,600, polymorphonuclear 51 per cent, lymphocytes 49 per cent. The red blood cells showed a moderate variation

in size and shape, there being many small cells. Lynn, hemoglobin 65 per cent, red blood count 3,337,000, white blood count 12,000, polymorphonuclear 52 per cent, lymphocytes 46 per cent, eosinophile 2 per cent. Red blood cells showed a similar variation in size and shape.

Blood Wassermann tests were negative on the mother and both twins.

Two weeks later Lyle had a Hgb. 50 per cent, RBC 2,650,000, WBC 8,750, PMN 58 per cent, Lym. 42 per cent. Lynn had Hgb. 50 per cent, RBC 2,600,000, WBC 12,000, PMN 50 per cent, Lym. 48 per cent, Eos. 2 per cent. Urine examinations on both were negative.

They left the hospital with their general condition unimproved. Both had ears discharging pus. They continued to lose weight and become more anemic and emaciated looking until their death, one and two months later, respectively.

Dr. Abt<sup>1</sup> has said in his paper on "The Diseases and Fate of Twins", that Von Jaksch's pseudo leukemic anemia may occur in one or both twins, and Finkelstein<sup>2</sup> reports twins who develop a clinical type of pseudo leukemic anemia after infections. Senator reported a case of splenic leukemia which developed in twin sisters of eighteen months, both died about the same time.

#### BIBLIOGRAPHY

1. Abt, Isaac A.—New York State Journal of Medicine, March 27, 1925, vol. xxiv, page 511.
2. Finkelstein, H.—Lehrbuch d. Sauglingskrankheiten, Berlin, 1921.

#### BIRTHS AND DEATHS OF INFANTS IN IOWA IN 1926\*

HENRY ALBERT, M.D., Des Moines

Collaborating Epidemiologist

"The number of births in Iowa in the year 1926 was 44,477. This figure represents a greater decrease in the birth rate than was reported for 1925. For the five years previous to 1925 the rate has never been lower than twenty births per 1,000 population but in 1925 it dropped to 19.7 and in 1926 to 18.4. From 1910 there had been a gradual rise from a rate of sixteen to a rate of twenty or over, a rate which has been maintained until the last two years", says Dr. J. Wallace of the State Department of Health.

"Has the farmer's economic condition and less hopeful outlook on the future in the last two years deterred the young people from marrying and bearing children or at least bearing many of

\*Weekly Health Message, No. 33, Iowa State Department of Health in co-operation with the United States Public Health Service.

them; or is the common talk about birth control beginning to have an effect?" asks Dr. Wallace.

"The state which had the highest birth rate in 1926 was Florida with a rate of 26.4, whereas the one having the lowest was Montana, with a rate of 14.2. The average rate for all the states included in the census bureau's report is 20.1 per thousand in 1926.

"Concurrent with the rise in the birth rates in Iowa, up to 1924, there was a corresponding reduction in deaths among infants under one year of age. In 1910 and 1911 the death rates of infants under one year per 1000 live births were eighty-seven and eighty-eight and seven tenths respectively, the rates from those dates have been dropping gradually until in 1924 a rate of fifty-five was reached. But during the last two years the rate has taken an upward trend so that in 1925 it was fifty-six and in 1926, fifty-nine and four-tenths, representing 2,644 deaths. That the birth rate should fall off and the infant mortality rise for the last two years would seem to be of some significance whereas for fifteen years previous there has been a gradual improvement along both these lines.

"It can hardly be that in 1924 we had reached our zenith of excellence and should expect no further improvement, but occasionally slumps backward. The rise for Iowa is not exceptional as nearly all states show increases in infant mortality for 1926; the state having the lowest rate reported is Oregon with a rate of fifty-seven and six tenths, while Delaware had the highest figure with a rate of ninety-two and nine tenths. The average rate for the U. S. A. in 1926 was seventy-two and two tenths as compared with seventy-one and five tenths for 1925.

"As an example of what can be done and has been done in other countries the latest figures on infant mortality for New Zealand are for 1924, and in that year the rate was forty and two tenths; the latest figures for Norway are for the year 1922, when the rate was fifty-four and nine tenths.

"Let us hope that the increase in rates for 1925-26 is only a temporary oscillation and does not mean a retrograde movement. The general improvement that has taken place over a series of years has been due to the diligent and earnest efforts of research workers, the wider clinical experience of physicians, the general education of the public on child care, particularly as to feeding, and the improvement in the physical conditions of those who are to be parents. The chief causes of death among infants, in Iowa are in order of frequency, premature births,

bronchitis and broncho-pneumonia and congenital malformations. In the United States as a whole, diarrhoea (and enteritis) is the second chief cause of death.

"The saving of infants in the first year of life has not meant an increase in the death rates in the succeeding early years of childhood. It has been found that many infants that were puny and had a precarious embarkation on the voyage of life, have through proper care, developed into sturdy, healthy men and women. The person who lives longest, as Dr. Oslar once said, is often the one who becomes trained to give careful attention to himself because at some time in life he has suffered from a disability that demanded special precautions. On the other hand the improvement in the naturally robust and virile of the youth of our day is so great that a degree of physical excellence and skill exhibited in feats of prowess hitherto unknown is being attained."

---

#### THE PREVALENCE OF COMMUNICABLE DISEASE<sup>1</sup> IN IOWA FOR THE WEEK ENDING JULY 1, 1927\*

HENRY ALBERT, M.D., Des Moines

Collaborating Epidemiologist

The week just closed shows by long odds the lowest incidence of disease of any week of the year 1927. The total number of cases reported for the past week was only about half the number for the week previous, which up to that date, was the lowest of any week of the year.

All diseases showed decreases (some of them marked decreases) except chicken pox, whooping cough and tuberculosis. We are taking for granted that the warm weather of the past week has not caused any of the clerks or officers regularly reporting to suffer from heat stroke and were therefore rendered incapable of reporting. It is well known that holidays have an effect in cutting down reports. Smallpox shows a decrease over the week previous, but there are evidently cases suspected of existing in a number of places in the state. During the week, smallpox vaccine was sent to Boone, Tama, Des Moines, Indianola, Grinnell, Adel, Anamosa, Atlantic, Manning, Oskaloosa, Albia, Clinton, Sioux City, and Lime City. For some of these cities the supply may have simply been a wise precaution to have people vaccinated before they could have any possible contact with a smallpox case.

1. From Communicable Disease Division, per Dr. J. Wallace.

\*Weekly Health Message, No. 33, Iowa State Department of Health in co-operation with the United States Public Health Service.



There is still some rabies in the state, as during the past week antirabic treatments have been sent to Des Moines, Lytton, Farmington, Manson and Mitchellville. Warm weather as was once believed, has little effect on rabies, but during the summer months, dogs ramble around more, tourists with dogs accompanying them are traveling around to a much greater extent, so that the opportunities for dog bites are greater.

Disease	No. of Cases	Counties Where Most Prevalent
Diphtheria	6	Johnson
Scarlet Fever	13	Scattered
Smallpox	17	Boone
Measles	52	Boone-Story-Calhoun
Mumps	2	Cass
Chicken Pox	12	Linn
Whooping Cough	18	Linn-Story-Woodbury
Tuberculosis	17	Johnson (Sanatorium)

For the cities, diphtheria, Iowa City 3, Manchester 2, West Liberty 1; scarlet fever, Keokuk, Creston and Manson each 2; smallpox, Boone 12, Des Moines 2, Sabula 2, and Waukee 1.

#### STATE LABORATORY FEES

The State Bacteriological Laboratory is now obliged to charge a small fee for blood Wassermann examinations.

The Forty-second General Assembly made no appropriation for the continuance of the free serological service. A letter, dated June 29, 1927, from the state director of the budget suggests that "a reasonable fee should be charged sufficient to cover at least a part of the cost \* \* \* not exceeding 50 cents for each examination."

The state will continue to provide the laboratory and the equipment. The fee which must be charged is the amount which will cover the cost of materials used and the labor involved. This is estimated to be 50 cents per specimen. (Approved by the Iowa State Board of Education July 12, 1927.)

To insure a smooth working of the plan, the following rules will be observed:

1. Cash to accompany specimen, except as provided under paragraphs 2, 3, and 4. Coins may be enclosed in the container at the sender's risk. To prevent loss, the inner one should be used. It is recommended that the wrapped coins be inserted just under the lid of the inner container and that this be inverted in the outer. The enclosing of money does not change the postal rate. If more than one specimen is being sent, payment may be made by check or bill sent under separate cover. Mark on report cards how cash is being sent.

2. Re-examination requested by us will be free. The report card which requests the re-examina-

tion must be enclosed with the second specimen.

3. Special arrangements may be made with a limited number of institutions or clinics for monthly or quarterly payments. Those desiring this should communicate with the laboratory.

4. On the recommendation of the State Department of Health, clinics doing public work in the control of syphilis may be given reduced rates.

5. The containers will be provided as previously, but no needle will be included in the outfit.

It is felt that this small fee should cause no hesitation in the requesting of examinations in questionable or suspicious cases.

Dr. A. V. Hardy,

Acting Head of the Department

#### THE LEGALITY OF STATE REGULATION OF THE PRACTICE OF MEDICINE

Mr. James A. Toby of Washington, D. C., reviews the subject which was published in the Federation Bulletin for March. We are publishing that which relates to the constitutionality of the right of the states to establish regulations controlling the practice of medicine.

During the last 50 years the United States Supreme Court has had eight occasions to consider various phases of the legality of state regulations of the practice of medicine. The most recent of these cases was decided April 12, 1926, while the opinion in the Dent vs. West Virginia case was rendered January 14, 1889. In every instance the constitutionality of medical practice acts has been sustained. These decisions have not only considered the general authority of the states and the rights of individuals with the respect to the practice of medicine, but have taken up such matters as the regulation of osteopathy and mental healing, the legality of the qualifications imposed on practitioners, and the effect of laws exempting certain classes of persons from new requirements. A study of these decisions gives a physician valuable illustrations of some of the legal principles involved in medical regulation.—Federation Bulletin, March, 1927.

#### HONORS AWARDED DR. CHEVALIER JACKSON

Dr. Chevalier Jackson, professor of bronchoscopy in the Jefferson Medical College and professor of bronchoscopy in University of Pennsylvania Graduate School of Medicine, was awarded a medal, a diploma and a check for \$10,000 by the Edward M. Bok endowment, in recognition of a service "calculated to advance the best and largest interests of Philadelphia."

# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

**Publication Committee**

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

**SUBSCRIPTION \$3.00 PER YEAR**

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

**Vol. XVII                      September, 1927                      No. 9**

**LISTER CENTENARY, 1827-1927**

On April 4, 1927, the medical world, including every civilized country, did honor to the memory of Joseph Lister, who was born in 1827. It was fit and proper that the man who contributed so much to the happiness and welfare of all the peoples of all nations, that all should join in holding the day of his birth as a sacred mark in progress, especially the people of his own country. We therefore present the ceremonies held in London, as published in the Canadian Medical Association Journal.

We publish in our issue this month details of the commemoration of the centenary of the birth of Lister as this took place in the universities and large hospitals throughout the Dominion. In the larger cities special meetings were summoned and addresses delivered emphasizing Lister's eminence as a scientist, and calling attention to the unparalleled benefits to the world which followed as a direct sequence of his researches. In many of the large and more important medical centers also throughout the American States, honored notice was taken of this centenary day, and due acknowledgement was given to the value of Lister's work.

**Ceremonies in London**

The most brilliant ceremonies, however, took place in London where representatives of nearly every civilized country met to offer unqualified honor to Lister and to acknowledge that his researches have effected more for the happiness of the world than those of any other man. The work

of no man reaches a higher pinnacle of eminence through his own individual productive power. Lister, like Newton, made use of the work of many previous scientists, and was especially indebted to the investigation of the causes of putrefaction carried out by his great French confrere, Pasteur. To Lister, alone, however, must be given the credit for the application of the slowly acquired knowledge regarding micro-organisms to the prevention of the septic infection of wounds, and to the amelioration of the frightful conditions then existing in all hospitals. The truth of this statement was fully endorsed by the delegates of all countries, and was emphasized in the many addresses delivered at the gathering on this occasion.

The first meeting of this centenary celebration took place on the afternoon of April 4, when a large gathering not only of the profession and of notable scientists, but also of delegates from all parts of the world, assembled in the refectory of the King's College Hospital and listened to an address on Lister by Sir W. Watson Cheyne, one of Lister's first clinical assistants in London. Sir Watson Cheyne began his address by calling attention to the fact that it was just fifty years that Lister was offered by the authorities of King's College Hospital the appointment to the chair rendered vacant by the death of Sir William Ferguson. The offer came as a surprise to him. For eight years he had filled the chair of surgery in Edinburgh, and he looked back upon them with pleasure, and referred to them in after years as the happiest and fullest of his life. He decided, however, after much thought to accept the offer, but announced when taking leave of his large class of students, that it was only a sense of duty that impelled him to leave the school where he had received uninterrupted kindness, and to take a cold plunge into what might prove a sea of troubles for him. Looking back upon that decision many have questioned whether it was a wise one on his part. Doubtless he considered that his views would penetrate the medical world more quickly from London than they would from Edinburgh, but for several years he was conscious of what has been called, "the colossal apathy", and "the inconceivable indifference to new ideas" shown by the students and surgeons of the London hospitals. London, and for the most part England, proved during those early years the truth of the old proverb that a prophet is not without honor, save in his own country. Bacteriology in London was non-existent as a science. The connection of fermentation to the healing of wounds was scouted and even ridiculed. King's College was a small school compared with some of the other schools of London. The four hundred students that had filled his halls in Edinburgh were replaced by a few score and the numbers of these dwindled rapidly. Even the nursing sisters in his hospital made fun of his copious ablutions and the numerous purifications ordered by him before a patient was allowed to



be touched. His methods were regarded by the greater portion of the profession as but another variant of the many previous empirical and hopeless efforts. Nevertheless, although London surgeons and students were apathetic over the revolution in surgical methods which was being wrought in their midst, it was not so with the many foreigners who visited his ward. Europe even then was re-echoing with the praise of Lister himself and his methods. The address was received with great interest by all present.

On the following day, the morning of the 5th, the King held a reception at Buckingham Palace, and received the delegates from 22 different countries and 62 British institutions. In his reply to an address His Majesty referred to the wonderful revolution which had taken place in surgery; a revolution which he attributed partly to the introduction of anesthesia, but in still greater measure to the antiseptic methods of Lister.

In the afternoon a reception was held in the great assembly hall of the British Medical Association building, at which Sir Ernest Rutherford, president of the Royal Society, occupied the chair, and the numerous delegates and guests were received by the Prime Minister. Congratulatory telegrams were received from the Imperial Academy of Tokyo and the State Institute of Experimental Medicine of Leningrad. In a brilliant address Professor Henri Hartmann, of Paris, expressed his pleasure in conveying the homage of the Academy of Medicine to the memory of Lister, and said French surgeons before Lister—Declat, Lemaire, Maisonneuve and Demarquar—had used carbolic acid in the treatment of wounds, but with indifferent success. Lister had obtained his results because he built up his method on a scientific basis and the world had benefited from his science. Professor Max Gruber, of Munich, in his address of appreciation, characterized as the three greatest advances in the prevention of disease, vaccine originated by Jenner; the method for the prevention of puerperal fever introduced by Semmelweis, and the antiseptic treatment of wounds elaborated by Lister. Thanks to the methods taught us by Lister, surgery has made greater conquests during the past two decades than in the previous two millenniums, and German surgeons had had an important share in the triumph.

In the late afternoon of the same day the president and council of the Royal Society held a reception within the halls of the Hunterian museum, where again a brilliant gathering of foreign delegates and eminent representatives of science and the medical profession assembled.

In the evening a dinner, at which the Lord Mayor of London and the Lord Provost of Glasgow were both present, was given by the Merchant Tailors Company in their famous hall. Professor Nicolaysen, of Norway, and Professor Irving Cameron, of Toronto, replied to the toasts of the dele-

gates. Sir John Rose Bradford, in proposing the toast of the Master of the Merchant Tailors Company called attention to the fact that while the Royal College of Physicians of London held special festival in honor of Harvey, and the Royal College of Surgeons of England did the same for John Hunter, the City of London had conferred its freedom on Lister and named him as their great Master of Science.

On the morning of April 6th, commemoration service was held in Westminster Abbey and an address was given by the Bishop of Birmingham.

In Glasgow, the Lister Centennial was celebrated by a commemoration service in the cathedral to which the clergy, corporation and academie representatives walked in procession. A civic luncheon followed, at which the Lord Provost presided, and Sir John Bland Sutton proposed the toast to the illustrious memory of Lord Lister. In the afternoon many representatives visited Kelvingrove Park and laid wreaths at the foot of Lister's monument.

---

We have been made conscious of the deplorable condition of the state in which we have lived for more than 50 years. We have just read in one paper a report of a state agent setting forth the scandalous environment of our great University, including the conduct of students regardless of sex, under the direct observation of the University officials. This report is alleged to have emanated under the direction of the governor of the state. We are comforted by reading in another paper that the governor denies that any such report was authorized and the mayor of the city emphatically denies any such condition exists in Iowa City.

We have arrived at a period in our history when the enthusiasm of certain reformers have carried them away from a true sense of fairness and justice, and are willing to sacrifice the good name of the state and its institutions in the furtherance of some conception of their own concerning the conduct of others. We have personal knowledge of the views of President Jessup concerning the rigid enforcement of prohibition laws and firmly believe that he would exercise a watchful eye over the conduct of students in respect to student violation.

Poor Iowa is undergoing a sore trial, what with the far and wide advertisement of the impoverished condition of the agricultural classes; the irregularities dominant in our cherished medical school, and now comes the immoral condition of the seat of our great University and the distressing habits our University young men and women have fallen into. What is the outlook for the future?

### DR. JUNGER AS REPORTER

We have received a copy of the "Soldier Sentinel," containing a report by Dr. E. C. Junger, of the trip with the National Editorial Association to the Black Hills, South Dakota. It is not often that just a medical doctor has an opportunity to mix with the makers of public opinion, especially when the objective is in attendance on the President of the United States, on a summer vacation.

Dr. Junger has presented an excellent description of the Black Hills attractions, together with an account of the doings of the distinguished party. Dr. Junger is always sincere and direct in speech and does not fail in presenting his views in unmistakable language, often original; for this reason we cannot omit some of the things he says. "After the reception and the speech by the President, Mrs. Coolidge came down on the lawn with her camera and took the picture of the little boy in the crowd. She will be blessed by this boy and a million people for this little act of neighborliness and personal touch she gave to our visit. How fortunate is the man, be he President or day laborer, if he has a wife that is a real helpmate." Dr. Junger perhaps does not know that Mrs. Coolidge was born and educated in Vermont and expresses the characteristics of her race and early environment; he should know her mother.

Dr. Junger says further: "I am for Coolidge." (He was also born in Vermont.) "He is a real man, and his sojourn in the Black Hills will show him the middle west and he will remember us in the days to come, and if any policy of government can assist us in overcoming the results of the slump of the post-war days, President Coolidge will favor it. Mr. President: If God will spare you for us, you can count on my vote and millions more throughout the middle west to keep you for our President for at least another term. As I write I am moved to tears of joy and gratitude because our country is blessed with leadership such as our President and his good wife."

Other newspaper reporters would have said other things, from different motives, perhaps, or perhaps for political reasons, but our good doctor recognizes Mr. Coolidge as our President with a full appreciation of what our duties and obligations are to the head of the nation. It seems strange sometimes how little respect our people show to the dignity of the great office to which Mr. Coolidge has been elected.

### IOWA STATE UNIVERSITY COLLEGE OF MEDICINE PERSONNEL

The President of the Board of Education made the following statement as to the new personnel of the College of Medicine of the Iowa State University:

It has been the policy in the university for men on the ground to receive first consideration for all vacancies. It is only by having such a policy that the faculty morale may be maintained. It goes without saying that men on this faculty are expected to hold their own with the best men in other institutions of similar rank. Thus have the university and the college of medicine been brought to the present high standard.

#### Faculty Promotions

Dr. H. L. Beye, with ten years' experience as Dr. C. J. Rowan's understudy, goes forward as head of the department of surgery. Dr. F. R. Peterson is advanced to take the place of Dr. Beye. In the case of otolaryngology, Dr. D. M. Lierle, with five year's experience under Dr. Dean, is moved forward to take charge as acting head of this department. Dr. T. P. Brennan, who has been with us for seven years, assumes the acting headship in the psychopathic service. Each of these men has been in charge of the department for extended periods during the last few years.

Dr. H. M. Korns comes from Western Reserve university and Lakeside hospital, Cleveland, as first assistant to Dr. F. M. Smith in internal medicine. Practically all of the eighty positions on the teaching and clinical staff are now filled with competent men.

It is the hope of the board to secure a full time dean who will give his undivided attention to executive work and who will have little or no teaching or clinical duties, thus having more time for the task of unifying the work of the hospital and the college. In view of its importance, a very careful and deliberate survey is being made of all the men available for this position.

The board of education when organized eighteen years ago found the college of medicine in a critical condition. From that day to this, probably no other single department under its control has received as much attention. From the first, able men have been sought to fill every vacancy. Young men have been encouraged to remain and have been promoted as opportunity afforded.

In view of the great cost of medical education, the other departments of the university were asked at that time to step aside to give an opportunity for the college of medicine to go forward. This they were willing to do so that the college today stands as a monument to the university as a whole as well as to the single faculty.

Not only has the legislature granted increased funds for this department each biennium, but the



private foundations have also given support. These foundations have helped not alone by the large gifts of \$2,225,000 to assist in building a plant suitable to the needs of a modern medical college, but they have made repeated grants for specific funds to enable the teaching departments to function on a higher level. (No other state medical school has received such generous support from this foundation.)

The state of Iowa is dependent upon the college of medicine for the training of physicians and through the provisions of the Perkins and Haskell-Klaus laws, has come to depend upon the university hospital and the clinical staff for much remedial service for indigent persons distributed throughout the state.

### Medical Blowups Frequent

Unfortunately, medical education has been so frequently associated with blowups such as occurred here recently that they no longer cause surprise among students of medical education. Notable examples are to be found in Pennsylvania, Michigan, Illinois and elsewhere. It is rumored that others are now pending. The educational foundations, with their knowledge of medical education throughout the world, tell us that there seems to be no way of permanently avoiding these disturbances. We seem to have been fortunate in having had harmony for so many years.

It has been at all times especially difficult at Iowa to hold men of first rank, as these men have not only been attracted by the opportunities of independent private practice, but other institutions situated more favorably than we as to hospital, laboratory and research facilities, and, many times, salaries, have served as a constant temptation. Only by generous attitudes on the part of the state, the educational foundations, and the faculties themselves, has it been possible to reach the present commanding position in medical education.

Rest assured that the board will build upon the foundation to the end that we may have a medical school worthy of the present investment in medical education and clinical service on the campus.

---

The Journal of the Iowa State Medical Society.  
To the Editor:

I am wondering if anyone else, after reading your comments on "The American Medical Association", "The Iowa State Medical Society", and "Minnesota Legislation", was reminded that a certain Jeremiah, many, many years ago gave expression to large "lamentations", after enunciating some fundamental principles from which there had been a departure. Anyway the analogy strikes me as fair.

With such organizations the practice of medicine should have been made less difficult, as well as more remunerative, with the passing of the years,

particularly since 1905, when these organizations were standardized and correlated; but, if there is any difference, such results seem farther afield than ever.

As one, who, from the first, voiced a skepticism about the economic efficiency of these organizations, it should go without saying that I am not surprised that they are "up against it" in various ways. While much has been done to improve the intellectual status of the individual member, and something for the moral (as much, perhaps, as can be done by a "machine without teeth"), the policy of outspoken opposition to the "cults" has, unfortunately though naturally, led the public to suspect that our organization is, in the main, "for profit." Medical legislation, plus the scramble for it, has, outside of its check upon the schools, probably cost us more than it has been worth. It led first to the legalizing of the "cults"; and has made possible now the restrictions of the Harrison and Volstead laws.

The organization could be effective, but has been ineffective, because it has been controlled by the "radicals",—would not make haste "slowly", as some of us advised.

Let's forget the "cults." Their lives hang on our opposition; and our own housecleaning job is enough.

H. B. Young.

---

### POSTGRADUATE MEDICAL INSTRUCTION IN BELGIUM

---

Various attempts to organize postgraduate medical instruction have been made in many countries. The plan usually is to provide courses during the academic vacations, with the idea of furnishing general practitioners with a survey of the recent progress in medicine in a more practical and more tangible manner than through textbooks or the medical press. It was on that principle that the so-called *journées médicales* in Brussels were organized. These sessions have become the national convention of Belgium and have acquired a measure of international fame. In a more restricted sense, the various medical schools organize courses with clinical demonstrations and practical exercises, such as are calculated to benefit the specialist. In the near future, the Faculty of Medicine of Brussels plans to give a course of theoretical and practical lectures on mental medicine, medicolegal psychiatry and abnormal children, in connection with visits at various institutions, hotels and prisons. The Faculty of Medicine of Liege has likewise undertaken the organization of postgraduate courses, which were also given during vacations. But these were isolated efforts, which did not result in any continuity or regular organization.

However, a movement that was organized during the war has been taken up again; namely, that of the medical graduates of the University of Louvain. A short course was organized in December

of last year, during which the leading professors gave lectures on the principal problems interesting medical practitioners. Following that short session, the members present voted to re-establish the medical alumni association of the University of Louvain.—*Journal of A. M. A.*, May, 1927.

## TRAVEL STUDY CLUB OF AMERICAN PHYSICIANS

### Preliminary Bulletin of 1928 Study Tour

**General Outline.**—The 1926 tour included the Scandinavian countries, the Rhine, Switzerland, and the capitals of Western Europe. The 1928 tour will visit Southern Europe and the capitals and some health resorts of Central Europe. Sailing directly for Cadiz, Spain, a two weeks' stay in this romantic and hospitable country will serve as an impressive beginning, off the beaten path. The tour will continue along the Riviera, across Northern Italy (ocean dips in the Mediterranean at Nice, and in the Adriatic at the Lido of Venice), on to Budapest, Vienna, Munich and the Bavarian Alps and health resorts, winding up in Berlin.

**Time and Duration.**—It is planned to sail from New York about July 1st, 1928, or soon after, spend forty days in Europe, and return from Hamburg, making the entire trip in about two months. As soon as the 1928 sailing schedules are established, the definite plan of the Tour will be printed.

**Detail of Itinerary.**—Spain: Seville (3 nights), Cordova (1 night), Granada (2 nights), Madrid (4 nights), Barcelona (3 nights). France: Carcassone (2 nights), Nice (3 nights). Italy: Genoa (1 night), Milan (1 night), Venice (2 nights). Hungary: Budapest (3 nights). Austria: Vienna (3 nights). Germany: Bad Reichenhall (2 nights), Munich (3 nights), Bad Kissingen (2 nights), Berlin (4 nights), Hamburg (1 night).

**Clinical Visits.**—Madrid, Barcelona, Budapest, Vienna, Munich, Berlin.

**Management and Expenses.**—The Raymond & Whitcomb Company, whose management of the 1926 Tour was eminently satisfactory, will conduct this Tour. The rate of \$1,045 includes all traveling expenses on sea and land (first class in Spain and Italy, second class in France, Austria, Hungary and Germany), meals and lodging in first class hotels, all sight-seeing, transfers and tips.

Membership is open to all members of the Travel Study Club and their families, and physicians in good standing (approved by the executive committee) and their families. Total membership of the party is limited to fifty.

Correspondence and suggestions in reference to these plans are invited.

Dr. Fred H. Albee, President.

Richard Kovacs, M.D., Secretary,  
223 E. 68th Street, New York.

## SOCIETY PROCEEDINGS

### Cerro Gordo County Medical Society

Cerro Gordo County Medical Society held its regular monthly meeting at Clear Lake, Thursday, August 18, 1927. The doctors, their wives and guests enjoyed a 6:30 dinner at the Southshore Country Club, Clear Lake, a service of fifty plates.

After the dinner a social program was the order. Music, selected—Mr. and Mrs. Manning of Clear Lake. Impersonations—Miss Dorothy Reel, of Des Moines. Address—Hon. J. J. Clark, Mason City.

It is the custom of this society to have at least one social meeting each year, usually held at Clear Lake.

The next meeting will be held the third Tuesday of September, and the regular scientific will again be taken up.

E. L. Wurtzer, M.D., Secretary.

### Iowa County Medical Society

The regular meeting of the Iowa County Medical Society was held at the Public Library, Marengo, Tuesday, June 21, 1927, at 2:30 o'clock p. m. the program was as follows:

Case Report, Dr. E. L. Hollis, Marengo.

Erysipelas Antitoxin, Dr. Charles F. Noe, Amana.

Prostatic Obstructions, Dr. Jennings Crawford, Cedar Rapids.

Business meeting.

Officers—President, Ciney Rich, M.D.; vice-president, Frederick C. Schadt, M.D.; secretary-treasurer, I. J. Sinn, M.D.; delegate to State Convention, J. L. Augustine, M.D.; alternate, Henry G. Moershel, M.D.; Board of Censors—F. W. Bush, M.D., term expires 1927; F. C. Schadt, term expires 1928; C. H. Herrmann, M.D., term expires 1929.

### Keokuk County Medical Society

At a recent meeting of the Keokuk County Medical Society, the following officers were elected: President, Dr. W. W. Stirlen, Delta; secretary-treasurer, Dr. T. G. Dulin, Sigourney; Drs. A. P. Johnson and Wm. Pfannebacker, delegates to State Society.

### Mahaska County Medical Society

On May 3rd the Mahaska County Medical Society met for a dinner and to consider with Dr. E. Marsh Williams, Foot Defects, and The Sterilization of Drinking Water.

### Marshall County Medical Society

Marshall County Medical Society met at the Pilgrim Hotel, Marshalltown, May 3rd, when Drs. Ralph E. Keyser and Louis F. Talley opened a discussion on the subject of Duodenal Ulcers, illustrated with drawings and x-ray plates.

Several out of town doctors were the guests of the society and took part with members of the society in discussing this interesting subject.



### Austin Flint-Cedar Valley Medical Society

The midsummer meeting of the Austin Flint-Cedar Valley Medical Society was held Tuesday and Wednesday, July 12 and 13, at Cedar Falls, with the following program:

Tuesday, July 12, 1:00 p. m.

Business meeting.

Use of Insulin Outside of Diabetes, Dr. Hans Haumeder, New Hampton.

Meckel's Diverticulum and the Appendix, Dr. J. F. Studebaker, Fort Dodge.

Goitre with Complications, Dr. George Kessel, Cresco.

Problems of Surgery of the Thyroid, Dr. John deJ Pemberton, Mayo Clinic, Rochester, Minn.

Some Difficulties in the Diagnosis of Exophthalmic Goiter, Dr. Samuel F. Haines, Mayo Clinic, Rochester, Minn.

Clinic: Goiter Cases, Drs. Pemberton and Haines.

Evening, 6:30 p. m.

Banquet—Dining Room, Bartlett Hall, Iowa State Teachers College.

Musical Program—Musical Department, Iowa State Teachers College.

Wednesday, July 13, 8:30 a. m.

Ectopic Pregnancy, Dr. W. L. Griffin, Charles City.

Difficulty of Adjustment During the Adolescent Period, Dr. George Donohoe, Supt. State Hospital, Cherokee.

Usual Renal Cases, Dr. Wade Preece, Waterloo.

The Pathology of the so-called Hypernephroma of the Kidney, Dr. E. L. Miloslavich, professor of pathology, Marquette University, Milwaukee, Wisconsin.

Endocrines in Obstetrics and Gynecology, Dr. J. C. Litzenberg, professor of obstetrics and gynecology, University of Minnesota, Minneapolis, Minn.

Clinic: Obstetrical and Gynecological Cases, Dr. J. C. Litzenberg.

Election of officers.

1:00 p. m.

President's Address, Dr. C. H. Cretzmeyer, Algona.

Fractures of the Hip, Dr. J. C. Hancock, Dubuque.

Chronic Non-suppurative Osteomyelitis, Garre Type, Dr. J. C. Shellito, Independence.

Indications and Treatment in Arthritic Knee, Dr. Arthur Steindler, professor of orthopedic surgery, University of Iowa, Iowa City.

Clinic: Orthopedic Cases, Dr. Arthur Steindler, Iowa City.

Officers—Dr. C. H. Cretzmeyer, Algona, president; Dr. J. E. Brinkman, Waterloo, vice-president; Dr. W. E. Long, Mason City, treasurer; Dr. L. R. Woodward, Mason City, secretary.

This was one of the most successful meetings that the society has had in recent years, and one

of the best attended, there being about one hundred physicians present, from the northeast corner of Iowa. The doctors of Cedar Falls are certainly to be congratulated on the success of the program, especially in the clinical material which was collected for the three clinics, a goitre clinic by Drs. Pemberton and Haines, a gynecological clinic by Dr. Litzenberg, and an arthritic clinic by Dr. Steindler.

A very remarkable feature of the program was the evening entertainment, which was given by the faculty of the Music Department of the State Teachers College, and was of unusual merit.

The society is going to Charles City for the annual meeting on October 4th. The officers elected for the coming year are: President, Dr. J. E. Brinkman, Waterloo; vice-president, Dr. C. H. Graening, Waverly; secretary, Dr. L. R. Woodward, Mason City; treasurer, Dr. W. E. Long, Mason City.  
L. R. Woodward, Secretary.

### Des Moines Valley Medical Association

This important association held its forty-fifth annual session at Ottumwa, June 21, 1927. Dr. H. W. Vinson, Ottumwa, president. The first paper of the session was by Dr. George B. Crow of Burlington, Changing Views of Diabetes, followed by Dr. W. C. Newell of Ottumwa, Cancer of the Cervix, and by Dr. K. L. Johnston, Oskaloosa, also on Cancer of the Cervix.

At the afternoon session, addresses were given by Dr. Montrose T. Burrows, of Washington University, St. Louis; Dr. Watter H. Nadler, Chicago, and Dr. S. A. Spilman, Ottumwa.

### Upper Des Moines Medical Society

At a meeting of the Upper Des Moines Medical Society held August 11, 1927, at the Casino Park on Lake Okoboji, some sixty-five physicians and their wives and families met in one of the most successful group meetings ever held by the organization in its ten years of existence.

The program consisted of several clinics, special papers and a seven o'clock banquet at the Casino ballroom, at which Dr. J. B. Knipe, vice president, presided. The chest clinic was sponsored by Drs. Smith and Coldren of Milford, Iowa, who presented an abundance of well selected material. Dr. M. M. Myers, president of the Iowa Heart Association, had charge of the heart division, giving an address on his subject and offering demonstration cases. The lung division was under the supervision of the Iowa Tuberculosis Association, of Des Moines, which offered some very valuable information. After the noon luncheon at the Casino, a group of well-prepared and instructive papers was offered. The papers were as follows: Diabetic Acidosis in Childhood, Dr. Roland Stahr of Fort Dodge; Results of Immunization Against Scarlet Fever and Diphtheria, Dr. Chester A. Stewart, University of Minnesota; Treatment of Per-

nicious Anemia with Special Reference to Diet, Dr. Fred M. Smith, professor of internal medicine, State University of Iowa; The Action of Some Expectorants, Dr. W. L. Mendenhall, University of Boston; Common Diseases Affecting the Blood, Dr. Maurice Bonta, of the Mayo Clinic, Rochester.

At the banquet in the evening, Dr. Knipe, presiding, called upon Dr. M. J. Kenefick, president of the Iowa State Medical Society, for an after dinner talk on county societies; he was followed by Drs. W. W. Beam of Rolfe, John Peck, of Des Moines, and W. L. Mendenhall, of Boston, Massachusetts. These clever talks were interspersed with specialties, a song revue by Howard Meade, Ralph Packard, and Edward Horne; Mr. Walt Wood, black-face artist; and popular dance specialties by representatives of the Werblowsky Studio.

The officers of the Upper Des Moines Medical Society are Drs. E. E. Munger, Spencer, president; J. B. Knipe, Armstrong, vice president; Geo. H. Keeney, Mallard, secretary; and Drs. Smith, Coldren and Green, forming a committee on local arrangements.

Geo. H. Keeney, Secretary-Treasurer.

#### Iowa and Illinois District Medical Society

The Iowa and Illinois District Medical Society met in Davenport at 2:30 p. m., July 14. This society is made up of physicians practicing on the eastern border of Iowa and western counties of Illinois. It meets alternately in Davenport and Rock Island. The scientific service committee of the Illinois State Medical Society provides important local societies with a scientific program under the direction of Dr. William D. Chapman, councilor. Dr. James G. Carr, associate professor of medicine, Northwestern University, presented an interesting and instructive lecture on certain diseased conditions of the heart, and Dr. John A. Wolfer, associate professor of surgery, Northwestern University, a discussion on Chronic Duodenal Ulcer. In addition to the official program other guests of the society presented interesting discussions.

#### ANNOUNCEMENT OF CLINICAL CONGRESS OF PHYSICAL THERAPY

The American College of Physical Therapy announces that plans have been completed for its 1927 Clinical Congress of Physical Therapy and Sixth Annual Meeting, to be held at the Hotel Sherman, Chicago, October 31st to November 5th.

The program is extraordinary in character. The first three days are to be devoted to a school of instruction. For this purpose the country's most prominent clinicians and teachers have been selected and intensive fundamental and clinical training will be given. There will be one day of sectional meetings, the following distinct sections being represented: (1) Medicine, Diagnosis, Pediat-

rics and Endocrinology; (2) Surgery, Gynecology, Urology, Orthopedics; (3) Eye, Ear, Nose, Throat, Oral Surgery.

The fifth day of the Congress will be devoted to a joint session. Numerous special addresses by some of the foremost leaders in medicine will be offered. These will be of general interest to all whether in one specialty or another. The closing day will be given over to hospital and dispensary clinics.

Inasmuch as physical therapy has made such rapid strides in the past few years, a gathering such as this is of vital interest to every practitioner and specialist. The program in itself is attractive but additional features in scientific and commercial exhibits, demonstration clinics, small group conferences, etc., will help to make this congress an unusual event.

Physicians in good standing in their county societies are eligible to attend as are also technicians and doctor's assistants properly vouched for.

Those contemplating attendance are urged to enroll by mail as early as possible. The fee for the instruction classes is \$10.00 payable by all whether fellows of the college or not. Non-fellows of the college must pay in addition a registration fee to the assembly of \$5.00. Send for program and information to Chairman, Convention Committee, American College of Physical Therapy, Suite 820, 30 N. Michigan Ave., Chicago.

#### PROGRAM OF INTER-STATE POST GRADUATE ASSEMBLY OF NORTH AMERICA

Kansas City, Mo., October 17-20, 1927.

First Day—Monday, October 17th, 7 A. M.

Diagnostic Clinic (Gynecological)—Dr. Irvin Abell, professor of clinical surgery, University of Louisville, Medical Department, Louisville, Ky.

Diagnostic Clinic (Pediatric)—Dr. Alan Brown, professor of pediatrics, University of Toronto, Faculty of Medicine, Toronto, Canada.

Diagnostic Clinic (Surgical)—Mr. John S. McArdle, F.R.C.S.I., professor of surgery, University College, Dublin, Ireland.

Intermission—View Exhibits

Diagnostic Clinic (Pediatric)—Dr. McKim Marriott, dean and professor of pediatrics, Washington University School of Medicine, St. Louis, Mo.

Diagnostic Clinic (Gynecological)—Dr. William B. Hendry, professor of obstetrics and gynecology, University of Toronto, Faculty of Medicine, Toronto, Canada.

Diagnostic Clinic (Medical)—Dr. Edward Strecker, professor of nervous and mental diseases, Jefferson Medical College, Philadelphia, Pa.

Afternoon Session, 1 P. M.

Diagnostic Clinic (Medical)—Dr. Otto J. Kauffman, professor of medicine, University of Birmingham, Birmingham, England.



## Gynecology and Obstetrics—Symposium

The Bleeding Uterus—Dr. Irvin Abell, professor of clinical surgery, University of Louisville, Medical Department, Louisville, Ky.

The Significance of Abnormal Pain in Gynecological Conditions—Dr. William B. Hendry, professor of obstetrics and gynecology, University of Toronto, Faculty of Medicine, Toronto, Canada.

The Modern Trend in Midwifery and Gynecology—Dr. R. P. Ranken Lyle, professor of obstetrics and gynecology, University of Durham, Newcastle-upon-Tyne, England.

(Subject to be announced)—Dr. Ersilio Ferroni, professor of obstetrics and gynecology, University of Florence, Florence, Italy.

## Intermission—View Exhibits

The Particular Features of Italian Gynecology and Obstetrics—Luigi Mangiagalli, dean and professor of obstetrics and gynecology, Royal Clinical Institute, Milan, Italy.

The Mechanism of the Migration of the Ovum, and the Etiology of Tubal Pregnancy with Special Reference to the Origin of Indirect Migration—Professor Pasquale Sfameni, Rector of the Royal University and Director of the Obstetric-Gynecological Clinic, Bologna, Italy.

## Pediatrics—Symposium

The Daily Variation of Sunlight and its Effect on Growth and Resistance to Disease—Dr. Alan Brown, professor of pediatrics, University of Toronto, Faculty of Medicine, Toronto, Canada.

The Sequelae of Acute Infectious Diseases in Children with Special Reference to Their Effect upon the Kidneys—Dr. McKim Marriott, dean and professor of pediatrics, Washington University, School of Medicine, St. Louis, Mo.

The Significance of Basal Metabolism in Children—Dr. Fritz B. Talbot, clinical professor of pediatrics, Medical School of Harvard University, Boston, Mass.

(Subject to be announced)—Professor Adolphe Maffei, chief of the hospital service and head of the surgical department of the pediatric clinic, University of Brussels, Brussels, Belgium.

## Evening Session, 7 P. M.

The Importance of Examination of the Spine in the Presence of Intrathoracic or Abdominal Pain—Dr. John Phillips, assistant professor of therapeutics, Western Reserve University, School of Medicine; Director, Cleveland Clinic, Cleveland, Ohio.

(Subject to be announced)—Mr. John S. McArdle, F.R.C.S.I., professor of surgery, University College, Dublin, Ireland.

The Relation of Focal Infections to Certain Systematic Conditions—Dr. Charles H. Neilson, professor of medicine, St. Louis University, School of Medicine, St. Louis, Mo.

Factors Fundamental to the Healing of Tuberculosis—Dr. Francis M. Pottenger, Monrovia, Calif.

Some Problems in the Etiology of Heart Failure—Sir John F. H. Broadbent, F.R.C.P., London, England.

Poliomyelitis—Dr. Milton J. Rosenau, professor of preventive medicine and hygiene, Medical School of Harvard University, Boston, Mass.

New Investigations on the Physiology and Chemistry of the Male and Female Hormones—Dr. Sigmond Frankel, professor of experimental medicine, Imperial Royal University of Vienna, Vienna, Austria.

## Second Day—Tuesday, October 18th, 7 A. M.

Diagnostic Clinic (Surgical)—Dr. Arthur Dean Bevan, professor of surgery, Rush Medical College, Chicago, Illinois.

Diagnostic Clinic (Medical)—Dr. Elliott P. Joslin, professor of clinical medicine, Medical School of Harvard University, Boston, Mass.

Diagnostic Clinic (Pediatric)—Dr. Fritz B. Talbot, clinical professor of pediatrics, Medical School of Harvard University, Boston, Mass.

## Intermission—View Exhibits

Diagnostic Clinic (Surgical)—Dr. William D. Haggard, professor of clinical surgery, Vanderbilt University, School of Medicine, Nashville, Tenn.

Diagnostic Clinic (Surgical)—Dr. Dean Lewis, professor of surgery, Johns Hopkins University, Medical Department, Baltimore, Md.

Diagnostic Clinic (Surgical)—Dr. Nathaniel Allison, professor of orthopedic surgery, Medical School of Harvard University, Boston, Mass.

## Afternoon Session—1 P. M.

Diagnostic Clinic (Gynecological)—Dr. R. P. Ranken Lyle, professor of obstetrics and gynecology, University of Durham, Newcastle-upon-Tyne, England.

## Diseases of the Stomach—Symposium

The Early Diagnosis and Radical Operative Treatment of Carcinoma of the Stomach—Dr. Arthur Dean Bevan, professor of surgery, Rush Medical College, Chicago, Illinois.

The Significance of Gastric Hemorrhage—Dr. Frank Smithies, professor of medicine, Northwestern University, Medical School, Chicago, Illinois.

The Surgical Treatment of Gastric Ulcers, with Special Reference to the Massive Ulcers—Mr. Garnett Wright, F.R.C.S., honorary surgeon, Salford Royal Hospital; lecturer in surgical pathology, Victoria University, Manchester, England.

The Relation of Cancer of the Stomach to Ulcer—Dr. Alfred S. Warthin, professor of pathology, University of Michigan, Ann Arbor, Mich.

## Intermission—View Exhibits

## Diabetes—Symposium

The Liberation of Insulin and the Relation of this Hormone to the Other Internal Secretions—Dr. O. H. Best, associate professor of medical research, University of Toronto, Faculty of Medicine, Toronto, Canada.

The Ten Year Diabetic—What he should be and how it can be brought about—Dr. Elliott P. Joslin, professor of clinical medicine, Medical School of Harvard University, Boston, Mass.

Hyperthyroidism and Diabetes—Dr. Henry J. John, Cleveland Clinic, Cleveland, Ohio.

Renal Factors in Diabetic Coma—Dr. I. Snapper, professor of pathology, University of Amsterdam, Amsterdam, Holland.

The Relation of Focal Infections to Pancreatic Function with Special Reference to the Etiology of Diabetes—Dr. John C. Meakins, professor of medicine, McGill University, Faculty of Medicine, Montreal, Canada.

#### Evening Session, 7 P. M.

The Psychoses of Different Age Periods—Dr. Edward Strecker, professor of nervous and mental diseases, Jefferson Medical College, Philadelphia, Pa.

Diseases of the Bones and Joints—Symposium

Early Operation with Early Function in Certain Types of Fracture—Dr. Nathaniel Allison, professor of orthopedic surgery, Medical School of Harvard University, Boston, Mass.

Acute Non-Tuberculous Ilio-Psoas Infections—Dr. Leroy Long, dean and professor of surgery, University of Oklahoma, School of Medicine, Oklahoma City, Oklahoma.

Osteomyelitis—Dr. Lewis, professor of surgery, Johns Hopkins University, Medical Department, Baltimore, Md.

Trauma of the Knee-Joint—Dr. John J. Moorhead, professor of surgery, New York Post Graduate Medical School, New York, N. Y.

New Ways of Dealing with Fractures and Injuries of Articulations with Special Consideration of Their Functional Treatment (Moving Pictures)—Dr. Fritz Steinmann, professor of orthopedic surgery, University of Berne, Berne, Switzerland.

Third Day—Wednesday, October 19th, 7 A. M.

Diagnostic Clinic (Surgical)—Dr. Frank H. Lahey, Boston, Mass.

Diagnostic Clinic (Medical)—Dr. Charles A. Elliott, professor of medicine, Northwestern University, School of Medicine, Chicago, Illinois.

Diagnostic Clinic (Neurosurgical)—Dr. A. W. Adson, associate professor of surgery, University of Minnesota, Post-Graduate School of Medicine, Mayo Foundation, Rochester, Minn., and Dr. Harry L. Parker, consulting neurologist, Mayo Clinic, Rochester, Minn.

#### Intermission—View Exhibits

Diagnostic Clinic (Surgical)—Dr. Walter E. Dandy, professor of clinical surgery, Johns Hopkins University, Medical Department, Baltimore, Md.

Diagnostic Clinic (Medical)—Dr. James H. Means, professor of clinical medicine, Medical School of Harvard University, Boston, Mass.

Diagnostic Clinic (Surgical)—Dr. Robert S. Dinsmore, Cleveland Clinic, Cleveland, Ohio.

#### Afternoon Session, 1 P. M.

##### Thyroid Gland—Symposium

The Malignant Thyroid—Dr. Allan Graham, assistant professor of surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

End Results of Radiation Therapy in the Treatment of Carcinoma of the Thyroid Gland—Dr. U. V. Portmann, Cleveland Clinic, Cleveland, Ohio.

The Technique of Thyroidectomy—Dr. Frank H. Lahey, Boston, Mass.

Iodin in the Management of Goiter Patients—Dr. Clarence G. Toland, Los Angeles, Calif.

#### Intermission—View Exhibits

Cardiac Disturbances Associated with Hyperthyroidism—Dr. Charles A. Elliott, professor of medicine, Northwestern University, School of Medicine, Chicago, Ill.

Parathyreoprival Tetany—Dr. J. B. Collip, Ph.D., D.Sc., professor of biochemistry, University of Alberta, Edmonton, Canada.

A New Method of Surgical Treatment of Stenosis of the Larynx—Professor E. Schmiegelow, professor of otolaryngology, University of Copenhagen, Copenhagen, Denmark.

Tabetic Atrophy of the Optic Nerves—Professor Carl Behr, Hamburg, Germany.

Pernicious Anemia with Special Reference to Treatment with High Protein Diet—Dr. Clarence M. Grigsby, professor of medicine, Baylor University, Dallas, Texas.

#### Evening Session, 7 P. M.

Vagaries of Skin—Sir John Bland-Sutton, F.R.C.S., London, England.

#### Cancer—Symposium

The Danger of Incomplete Removal of Small and Apparently Innocent Lesions—Dr. Joseph C. Bloodgood, associate professor of clinical surgery, Johns Hopkins University, Medical Department, Baltimore, Md.

The Treatment of Laryngeal Carcinoma—Dr. Fielding O. Lewis, professor of laryngology, Jefferson Medical College, Philadelphia, Pa.

The X-ray Treatment of Epithelioma of the Face—Dr. James M. Martin, professor of roentgenology, Baylor University, College of Medicine, Dallas, Texas.

#### Intestines—Symposium

Appendicitis—Dr. Jabez Jackson, President, American Medical Association, Kansas City, Mo.

The Management of Acute and Sub-Acute Intestinal Obstruction—Dr. William D. Haggard, professor of clinical surgery, Vanderbilt University, School of Medicine, Nashville, Tenn.

The Mechanism of the Physiological Cecal Block and a Suggestion of a Simple Surgical Treatment—Dr. Rea E. Smith, Los Angeles, Calif.



Fourth Day—Thursday, October 20th, 7 A. M.

Diagnostic Clinic (Medical)—Dr. Harlow Brooks, professor of clinical medicine, University and Bellevue Medical College, New York, N. Y.

Diagnostic Clinic (Medical)—Dr. Leonard G. Rowntree, professor of medicine, University of Minnesota, Post-Graduate School of Medicine, Mayo Foundation, Rochester, Minn.

Diagnostic Clinic (Surgical)—Dr. William E. Lower, associate professor of genito-urinary surgery, Western Reserve University, School of Medicine; Director, Cleveland Clinic, Cleveland, Ohio.

Intermission—View Exhibits

Diagnostic Clinic (Surgical)—Dr. Joseph C. Bloodgood, associate professor of clinical surgery, Johns Hopkins University, Medical Department, Baltimore, Md.

Diagnostic Clinic (Medical)—Dr. David P. Barr, professor of medicine, Washington University, School of Medicine, St. Louis, Mo.

Diagnostic Clinic (Laryngological)—Dr. Fielding O. Lewis, professor of laryngology, Jefferson Medical College, Philadelphia, Pa.

Afternoon Session, 1 P. M.

Diagnostic Clinic—Dr. Hugh Cabot, dean and professor of surgery, University of Michigan, Medical School, Ann Arbor, Michigan.

The Lungs and Bronchi—Symposium

The Treatment of Pneumonia—Dr. Harlow Brooks, professor of clinical medicine, University and Bellevue Medical College, New York, N. Y.

The Significance of Certain Abnormalities of Respiration—Dr. David P. Barr, professor of medicine, Washington University, School of Medicine, St. Louis, Mo.

The Role of Bronchoscopy in the Diagnosis and Treatment of Diseases of the Lungs—Dr. Gabriel Tucker, associate professor of bronchoscopy and esophagoscopy, Graduate School of Medicine of the University of Pennsylvania, Philadelphia, Pa.

Bronchospirochetosis—Dr. Guiseppe Franchini, professor of pathology, Royal University of Bologna, Bologna, Italy.

Intermission—View Exhibits

Urinary System—Symposium

Silent Lesions of the Upper Urinary Tract—Dr. William E. Lower, associate professor of genito-urinary surgery, Western Reserve University, School of Medicine; Director, Cleveland Clinic, Cleveland, Ohio.

Infections of the Urinary Tract—Dr. Hugh Cabot, dean and professor of surgery, University of Michigan, Medical School, Ann Arbor, Michigan.

Transplantation of the Ureters—Dr. Robert C. Coffey, Portland, Oregon.

Evening Session, 7 P. M.

The Combat Against Leprosy—Dr. Paul Unna, Hamburg, Germany.

The Other Page of the Ledger—Mortality in Operations—Dr. John F. Erdmann, professor of surgery, New York Post-Graduate Medical School, New York, N. Y.

(Subject to be announced)—Dr. J. Marinho, professor of clinical oto-rhino-laryngology, Rio de Janeiro, Brazil.

(Subject to be announced)—Dr. Charles H. Mayo, professor of surgery, University of Minnesota, Medical School, Rochester, Minn.

Brain and Central Nervous Systems—Symposium

The Results of Sympathectomy in the Treatment of Raynaud's and Buerger's Disease—Dr. A. W. Adson, associate professor of surgery, University of Minnesota, Post-Graduate School of Medicine, Mayo Foundation, Rochester, Minn.

Anatomy and Clinical Importance of the Ear Findings in the Neurological Symptom Complex—Dr. Gustav Alexander, professor of diseases of the ear, University of Vienna, Vienna, Austria.

The Treatment of Tic Douloureux—Dr. Walter E. Dandy, Johns Hopkins University, Medical Department, Baltimore, Md.

Fifth Day—Friday, October 21st, 7 A. M.

Diagnostic Clinic (Surgical)—Dr. E. Starr Judd, professor of surgery, University of Minnesota, Post-Graduate School of Medicine, Mayo Foundation, Rochester, Minn.

Diagnostic Clinic (Medical)—Dr. Frederick J. Kaltefleiter, associate professor of medicine, Jefferson Medical College, Philadelphia, Pa.

Diagnostic Clinic (Surgical)—Dr. George W. Crile, professor emeritus, Western Reserve University, School of Medicine; Director, Cleveland Clinic, Cleveland, Ohio.

Intermission—View Exhibits

Diagnostic Clinic (Surgical)—Dr. Charles H. Mayo, professor of surgery, University of Minnesota, Medical School, Rochester, Minn.

Diagnostic Clinic (Medical)—Dr. Lewellys F. Barker, emeritus professor of medicine, Johns Hopkins University, Medical Department, Baltimore, Md.

Diagnostic Clinic (Surgical)—Dr. John B. Deaver, emeritus professor of surgery, University of Pennsylvania, Medical School, Philadelphia, Pa.

Afternoon Session, 1 P. M.

Diagnostic Clinic (Surgical)—Dr. John F. Erdmann, professor of surgery, New York Post-Graduate Medical School, New York, N. Y.

Gall-Bladder and Liver—Symposium

The Surgical Treatment of Diseases of the Biliary Tract—Dr. E. Starr Judd, professor of surgery, University of Minnesota, Post-Graduate School of Medicine, Mayo Foundation, Rochester, Minn.

The Significance of Jaundice—Dr. John B. Deaver, emeritus professor of surgery, University of Pennsylvania, Medical School, Philadelphia, Pa.

Relation of the Liver to the Surgical Risk in Cases of Gall-Bladder and Duct Disease—Dr. George W. Crile, professor emeritus of surgery, Western Reserve University, School of Medicine; Director, Cleveland Clinic, Cleveland, Ohio.

The Physiology of the Liver and Gall-Bladder—Dr. Frank C. Mann, professor of experimental surgery and pathology, University of Minnesota, Post-Graduate School of Medicine, Mayo Foundation, Rochester, Minn.

Present Knowledge Concerning Tests of Liver Function—Dr. Leonard G. Rowntree, professor of medicine, University of Minnesota, Post-Graduate School of Medicine, Mayo Foundation, Rochester, Minn.

Differential Diagnosis of Diseases of the Gall-Bladder—Dr. David Riesman, professor of clinical medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

#### Heart and Circulatory System—Symposium

Coronary Thrombosis—Incidence, Prevention and Treatment—Dr. Lewellys F. Barker, emeritus professor of medicine, Johns Hopkins University, Medical Department, Baltimore, Md.

Angina Pectoris—Dr. Frederick J. Kalteyer, associate professor of medicine, Jefferson Medical College, Philadelphia, Pa.

Relation of the Endocrines to Certain Circulatory Diseases—Dr. James H. Means, professor of clinical medicine, Medical School of Harvard University, Boston, Mass.

Gastro-Intestinal Auto-Intoxication as a Factor in Nervous Disorders—Dr. Otto J. Kauffman, professor of medicine, University of Birmingham, Birmingham, England.

### INTER-STATE POST GRADUATE ASSEMBLY OF NORTH AMERICA

#### Officers of the Association

Presidents of Clinics—Dr. William J. Mayo, Rochester, Minn.; Dr. Charles H. Mayo, Rochester, Minn.

President—Dr. Carl L. Larsen, St. Paul, Minn.

President-Elect—Dr. Lewellys F. Barker, Baltimore, Maryland.

Managing Director—Dr. William B. Peck, Freeport, Illinois.

Associate Managing - Director — Dr. J. Sheldon Clark, Freeport, Illinois.

Executive Secretary and Director of Exhibits—Dr. Edwin Henes, Jr., Milwaukee, Wisconsin.

Treasurer and Director of Foundation Fund—Dr. Henry G. Langworthy, Dubuque, Iowa.

Speaker of the Assembly—Dr. George V. I. Brown, Milwaukee, Wisconsin.

#### Board of Trustees

Dr. George V. I. Brown, Milwaukee, Wisconsin.

Dr. John M. Dodd, Ashland, Wisconsin.

Dr. Clifford U. Collins, Peoria, Illinois.

Dr. John F. Herrick, Ottumwa, Iowa.

Dr. John E. O'Keefe, Waterloo, Iowa.

Dr. Henry G. Langworthy, Dubuque, Iowa.

Dr. Edward S. Murphy, Dixon, Illinois.

Dr. Mather Pfeifferberger, Alton, Illinois.

Dr. Arthur G. Sullivan, Madison, Wisconsin.

#### Committee on Medical Research and Advancement

Dr. Frank Billings, Chicago, Illinois.

Dr. Walter L. Bierring, Des Moines, Iowa.

Dr. Walter W. Chipman, Montreal, Canada.

Dr. Henry Christian, Boston, Massachusetts.

Dr. Louis A. Connor, New York, New York.

Dr. George W. Crile, Cleveland, Ohio.

Dr. John B. Deaver, Philadelphia, Pennsylvania.

Dr. John M. T. Finney, Baltimore, Maryland.

Dr. Campbell P. Howard, Montreal, Canada.

Dr. Dean Lewis, Member and Secretary, Baltimore, Maryland.

Dr. Charles H. Mayo, Rochester, Minn.

Dr. Alexander Primrose, Toronto, Canada.

Dr. John L. Yates, Milwaukee, Wisconsin.

#### Program Committee

Dr. George W. Crile, Cleveland, Ohio, Chairman.

Dr. Lewellys F. Barker, Baltimore, Maryland.

Dr. George E. Brewer, New York, New York.

Dr. Henry A. Christian, Boston, Massachusetts.

Dr. John B. Deaver, Philadelphia, Pennsylvania.

Dr. Duncan A. L. Graham, Toronto, Canada.

Dr. James B. Herrick, Chicago, Illinois.

Dr. Jonathon C. Meakins, Montreal, Canada.

Dr. E. Starr Judd, Rochester, Minn.

#### Committee on Foreign Relations

Mr. Paul Appell, Director, University of Paris, Paris, France.

Prof. Roberto Alessandri, Chairman for Italy, Rome.

Dr. Edward W. Archibald, Chairman for Canada, Montreal.

Dr. Lewellys F. Barker, Baltimore, Maryland.

Prof. Raffaele Bastianelli, Rome, Italy.

Dr. Carl Beck, Secretary for America, Chicago, Ill.

Sir James Berry, President of the Royal Society of Medicine, London.

Dr. Arthur Dean Bevan, Chicago, Illinois.

Prof. August Bier, Chairman for Germany, Berlin.

Prof. L. Blum, Strasbourg, France.

Dr. George E. Brewer, New York, N. Y.

Dr. M. P. Bull, Oslo, Norway.

Dr. Hugh Cabot, Ann Arbor, Michigan.

Dr. Richard Cabot, Boston, Massachusetts.

Dr. Mariano R. Castex, Buenos Aires, Argentina.

Dr. Paul Clairmont, Honorary Secretary for Switzerland, Zurich.

Dr. George W. Crile, Cleveland, Ohio.

Mme. Curie, Paris, France.

Lord Dawson of Penn, Chairman for British Isles, London.

Dr. John B. Deaver, Philadelphia, Pennsylvania.



Prof. P. Delbert, Paris, France.  
 Dr. T. de Martel, Honorary Secretary for France, Paris.  
 Prof. Jean F. DeQuervain, Chairman for Switzerland, Berne.  
 Mr. Doleris, President de l'Academie de Medicine de Paris, Paris, France.  
 Prof. Mario Donati, Padua, Italy.  
 Prof. Anton Eiselsberg, Chairman for Austria, Vienna.  
 Prof. Eugen Enderlen, Hiedelberg, Germany.  
 Prof. Jean L. Faure, President de la Societe de Chirurgie de Paris, Paris, France.  
 Mr. Philip Franklin, F.R.C.S., Honorary Secretary for British Isles, London, England.  
 Prof. John Fraser, Edinburgh, Scotland.  
 Prof. Andrew Fullerton, Belfast, Ireland.  
 Prof. A. Gosset, Paris, France.  
 Dr. Duncan A. L. Graham, Toronto, Canada.  
 Prof. Guillain, Paris, France.  
 Dr. William D. Haggard, Nashville, Tennessee.  
 Prof. H. Hartman, Chairman for France, Paris.  
 Prof. Heitz-Boyer, Paris, France.  
 Prof. Wilhelm His, Berlin, Germany.  
 Prof. Israel Holmgren, Stockholm, Sweden.  
 Major-General Merritt W. Ireland, Surgeon General, United States Army, Washington, D. C.  
 Prof. Hans C. Jacobaeus, Stockholm, Sweden.  
 Prof. Rudolph Jedlicka, Honorary Secretary for Czecho-Slovakia, Prague.  
 Sir Robert Jones, Liverpool, England.  
 Dr. Allen B. Kanavel, Chicago, Illinois.  
 Prof. Robert E. Kelly, Liverpool, England.  
 Dr. Francis H. Lahey, Boston, Massachusetts.  
 Sir William Arbuthnot Lane, Bt., London, England.  
 Prof. O. Lanz, Honorary Secretary for Holland, Amsterdam.  
 Dr. Dean D. Lewis, Baltimore, Maryland.  
 Dr. Charles F. Martin, Montreal, Canada.  
 Dr. Charles H. Mayo, Rochester, Minnesota.  
 Dr. William J. Mayo, Rochester, Minnesota, Chairman for U. S.  
 Dr. Jonathon C. Meakins, Montreal, Canada.  
 Sir William Milligan, Manchester, England.  
 Sir Berkeley Moynihan, Leeds, England.  
 Prof. Friedrich Mueller, Munich, Germany.  
 Prof. Erik G. Nystrom, Upsala, Sweden.  
 Prof. Edwin Payr, Leipsig, Germany.  
 Prof. Erik G. Petren, Lund, Sweden.  
 Prof. Clemens Pirquet, Honorary Secretary for Austria, Vienna.  
 Dr. Alexander Primrose, Toronto, Canada.  
 Prof. Vittorio Putti, Honorary Secretary for Italy, Bologna.  
 Sir Humphrey Rolleston, Bt., London, England.  
 Dr. Emile Roux, Director de L'Institute Pasteur, Paris, France.  
 Prof. Ferdinand Sauerbruch, Honorary Secretary for Germany, Munich.  
 Prof. Hermann Schloffer, Chairman for Czecho-Slovakia, Prague.  
 Prof. Victor Schmiedon, Frankfort, Germany.

Prof. Jan Shoemaker, Chairman for Holland, The Hague.  
 Prof. P. Sebileau, Paris, France.  
 Dr. Clarence L. Starr, Honorary Secretary for Canada, Toronto.  
 Sir Harold J. Stiles, Edinburgh, Scotland.  
 Rear-Admiral Edward R. Stitt, Surgeon General, United States Navy, Washington, D. C.  
 Prof. A. Stolz, Strasbourg, France.  
 Prof. Paul Sudeck, Hamburg, Germany.  
 Sir John Bland-Sutton, Bt., London, England.  
 Sir William Taylor, Dublin, Ireland.  
 Sir St. Clair Thompson, London, England.  
 Mr. George Grey Turner, F.R.C.S., Newcastle-upon-Tyne, England.  
 Prof. Theodore Tuffier, Paris France.  
 Prof. P. Vanderveldi, Honorary Secretary for Belgium, Brussels.  
 Prof. Jean Verhoogen, Chairman for Belgium, Brussels.  
 Prof. Alexander von Koranyi, Budapest, Hungary.  
 Sir Holburt J. Waring, London, England.  
 Sir William DeCourcy Wheeler, Dublin, Ireland.  
 Prof. F. Widai, Paris, France.  
 Prof. David P. D. Wilkie, Edinburgh, Scotland.  
 Prof. August Wimmer, Copenhagen, Denmark.  
 Dr. Milton C. Winternitz, New Haven, Conn.  
 Prof. Archibald Young, Glasgow, Scotland.

#### FEDERATION OF STATE MEDICAL BOARDS OF THE UNITED STATES

At a rather late moment we are presenting in part the closing program of this important Federation body.

The nominating committee appointed by President Welch, consisting of Drs. K. P. B. Bonner, Henry W. Briggs and G. M. Williamson, presented its report through the chairman, Dr. Henry W. Briggs, and recommended the following nominations for officers for the ensuing year: President-elect, Dr. Guy L. Connor, Michigan Board; vice-president, Dr. Henry M. Fitzhugh, Maryland Board; secretary-treasurer, Dr. Walter L. Bierring, Des Moines, Iowa. For members of the executive committee, term to expire 1930, Dr. Chas. B. Kelley, New Jersey Board.

On motion of Dr. McCormick of Kentucky, seconded by Dr. Metzger of Pennsylvania, the rules were temporarily suspended and the secretary cast the unanimous vote of the Federation for the nominees presented by the committee. Carried, and they were declared elected as the officers of the Federation for the ensuing year.

President Welch then introduced the incoming president, Dr. Byron U. Richards of Rhode Island, who made a few appropriate remarks.

Dr. McCormick presented a motion that President Richards be empowered to appoint separate committees to consider the address of President

Welch, and those papers presented in the Wednesday, February 16th, program, which expressed a definite Federation policy, such committee to report at the next meeting of the Federation. Carried.

Dr. R. L. Kerr of the Missouri board and representing Governor Baker of Missouri, read a message stating the Missouri Medical Practice Act had passed both branches of the Missouri legislature and now awaited the Governor's signature to become a law. Dr. Kerr referred to this as a triumph for higher standards of licensure, it being particularly gratifying in view of the struggle involved during the "house cleaning" process of recent years. In bringing this about great credit was due to Dr. F. C. Waite of Ohio, for his thorough investigation of the diploma mills in which he was aided so effectively by the members of the Missouri State Board of Health and the State Medical Society, but particular credit was due to the yeoman services of the "wheel horse" in the campaign, Dr. E. P. North, former president of the Missouri State Board of Health.—Federation Bulletin, March, 1927.

---

#### WESTERN SURGICAL ASSOCIATION

The next meeting of the Western Surgical Association will be held at Omaha, Nebraska, Thursday and Friday, December 8 and 9, 1927. Headquarters—Hotel Fontenelle. Sessions will be held at follows: Thursday, December 8—9:00 a. m.-12:30 p. m.; 2:00 p. m.-5:00 p. m. Annual Dinner, 7:00 p. m. Friday, December 9—8:30 a. m.-12:30 p. m.; business session, 1:30 p. m.; 2:00 p. m.-5:00 p. m.

---

#### MEDICAL NEWS NOTES

August 13, 1926, marked the end of one hundred years since the death of one of the greatest and best beloved physicians, Rene Theophile Hyacinthe Laennec, the inventor of the stethoscope and the great pioneer in the physical diagnosis of the chest; himself, at last, the victim of tuberculosis, to the knowledge of which he made such a supreme contribution. In all medical history there is no more fascinating chapter. Laennec's name comes down to us in an atmosphere of affection and admiration in which he was held by his contemporaries and successors; his writings still speak to us of the quality of his mind and his work, accomplished as it was in the face of great handicap and physical suffering to which he finally succumbed.—Minnesota Medicine.

The Iowa Heart Association met at Council Bluffs, May 13, 1927. Papers were read by Dr. V. L. Treynor, Council Bluffs; discussions were pre-

sented by Dr. W. L. Bierring of Des Moines, and Dr. L. R. Woodward of Mason City. Dr. J. H. Musser, professor of medicine, Tulane University, was expected to take part in the meeting, but was detained on account of sickness. Dr. M. M. Myers of Des Moines, presided.

The Odebolt hospital, formerly owned and operated by Drs. Groman, McAllister and Stillman of Odebolt, has passed into the hands of Dr. G. H. Hartley of Battle Creek, Iowa, one of the members of the original organization.

---

#### PERSONAL MENTION

Dr. Victor C. Myers, professor of bio-chemistry, State University of Iowa, has accepted the appointment as professor of bio-chemistry in Western Reserve University, Cleveland, Ohio, and will take up his work there in September.

Dr. H. A. Mattill, formerly of the University of Utah and the University of California, has been appointed head of the combined departments of bio-chemistry and pathological chemistry in liberal arts and medicine in the University of Iowa.

Dr. Jay G. Roberts of Oskaloosa, has changed his field of professional activities from Oskaloosa to Pomona, California. His son, who is a medical student in the University of Illinois, expects to complete his course at Stanford University. Dr. Roberts has practiced in Oskaloosa 23 years.

Dr. Frank J. Rohner announces the opening of an office at 206 Dey Building, Iowa City. Practice limited to consultations in general medicine and neurology.

Dr. Alano E. Pierce of Minneapolis, a graduate of the University of Minnesota, has become associated with Dr. Heald at the Sigourney hospital.

---

#### MARRIAGES

Married at Grand Island, Nebraska, August 15, Anna J. S. Donelan and W. Harold Scoins. Miss Donelan is the only daughter of Mrs. and Dr. J. M. Donelan of Glenwood, Iowa, niece of Dr. Frank E. Donelan, Glenwood, Iowa, and grand-niece of the late Dr. E. A. Donelan, St. Joseph, Mo. She is a graduate of Broadoaks, Pasadena, California, and the University of Nebraska, a member of the Kappa Kappa Gamma Sorority. Dr. Scoins of the medical department, University of Nebraska, and member of the Delta Chi and Phi Rho Sigma fraternities, is the son of Mrs. A. B. Congrove of Cairo, Nebraska. After a tour of Colorado, Dr. and Mrs. Scoins will be at home at St. Mary's Apartments, Omaha.



## OBITUARY

Dr. Frank C. Mehler of New London, Iowa, died at his home, July 21, 1927, at the age of eighty-four years, following an illness of three weeks. He had practiced in New London fifty-six years.

Dr. Mehler was born in Westphalia, Prussia, May 15, 1845, the son of Casper and Louise Droege Mehler. He came to America with his parents October 11, 1858, and lived in Chicago until November 11, 1871, when he came to New London.

Dr. Mehler graduated from Rush Medical College, Chicago, January 21, 1863, one year under graduation age in order to enter the service of the United States army as a surgeon. He was detailed as acting assistant surgeon at Camp Douglas, Chicago, and served at General Hospital, Mound City, Illinois; at Paduca, Kentucky, and as surgeon at quartermasters' department, Nashville, Tennessee, until July, 1865. After being mustered out of the service, he began practice in Chicago where he remained until November 11, 1871, when he located in New London, Iowa. May 22, 1873, he married Laura E. Bristor who died January 11, 1898. From this union two children were born: Frank R., May 23, 1874, and Grace A., November 4, 1883. Dr. Frank Mehler, who became a physician, died several years ago (1922). The death of this son was a grievous loss to his father who had looked upon the young man as a helpful aid in his declining years. The son entered the World War and served eighteen months in France as a member of Unit B. His grandson, Frank Mehler, is a junior medical student at Iowa City.

It was the privilege of the writer to know Dr. Frank C. Mehler rather intimately for more than twenty-five years, often meeting him at medical society meetings at which he was a frequent attendant and took an active and interested part. It is rather uncommon for a physician who had reached his age to retain his interest in medical affairs up to the last. At the Diamond Jubilee of the State Medical Society at Des Moines in 1926, three old men, including Dr. Mehler, Dr. Schooler and the writer, posed for their picture at the east door of the Fort Des Moines Hotel. This was the last public appearance of our friend, Dr. Mehler. Dr. Mehler made no important or impressive contributions to the science of medicine, but he did contribute much to the welfare and happiness of the community in which he lived. His contributions were of a character that makes the world a better place in which to live and his kind of medical practitioner have added immensely to the good name and usefulness of the medical profession.

It too often happens that flowers and commendations awaits the close of mens' lives and he knows not of them, but this did not happen to Dr. Mehler, for on the completion of sixty years of practice, five years ago, the physicians of Southeastern Iowa, to their credit, gave a complimentary dinner to the doctor. The social interests of

Dr. Mehler are indicated by his membership in the Presbyterian church, the Masons, Shriners, Knights-Templars and Knights of Pythians.

His activities in medical organizations are shown by the fact that he was a charter member of the Henry County Medical Society, of which he was president twice, a member of the Southeastern Iowa Medical Society, Des Moines Valley Medical Society, Iowa State Medical Society, of which he was vice-president, 1925-1926, and a Fellow of the American Medical Association. This is the record of a plain, honorable, useful member of the medical profession.

Dr. Mehler was the oldest surgeon for the Chicago, Burlington and Quincy Railroad, both as regards years of service and age.

Dr. Mehler is survived by one daughter, Mrs. Charles Barringer of Boise, Idaho, and two grandsons, John Mehler Barringer and Frank R. Mehler, New London.

The following tribute to her father comes from his daughter, Mrs. Grace Mehler Barringer:

"I am naturally very proud of my father's record, sixty-four years active practice of medicine. He virtually died 'in harness'; as he worked until three weeks before his death. It was a glorious and splendid ending of an unselfish life."

## Resolutions

Adopted by the Henry County Medical Society, because of the death of Dr. F. C. Mehler of New London, Iowa.

Whereas, On Thursday morning, July 21, 1927, at his home in New London, Iowa, our esteemed and faithful friend and elder brother, Dr. F. C. Mehler, of New London, Iowa, who helped to organize and maintain this Society, was summoned from his labor to his final rest and future reward.

Therefore, Be it Resolved by the Henry County Medical Society, that in his death, this Society, collectively and individually, has lost a faithful and loyal friend and a wise counselor, the medical profession one of its most devoted, active and exemplary members, one who was always busy gathering the latest improved methods for the care and treatment of his patients by frequent observation at hospitals, attendance at medical society meetings and extensive study and reading and the knowledge gained from long years of practice, to the end that he might render more efficient service to his large and trustful clientele.

The community has lost its most esteemed and respected citizen; their old trusted family physician and counselor, who in time of sickness and distress was ever ready, through fair weather and foul, to answer their call and bring hope and relief to their distress, for fifty-six long years their dependent in sickness and sorrow. Now that he has been called by his Master to fairer fields, they will miss him.

He was a kind, indulgent husband and father, always solicitous for the comfort and welfare of



DR. FRANK C. MEHLER



his family. In their bereavement and grief we extend to them especially, and also to his many friends, our heartfelt sympathy, and for their consolation we commend them to remember his long years of self-sacrificing service to his brother man, his kindness, love of justness, patriotism, patience, optimism, and nobility of character he has left to them, and to us, as a heritage and worthy example to follow.

Resolved Further, That we instruct our secretary to inscribe these resolutions upon the records of this Society, forward a copy to his daughter, Mrs. Grace Barringer, also one to his grandson, Frank Mehler, and one to the Iowa State Medical Journal, for publication.

Resolutions Committee,  
O. A. Geeseka,  
G. E. Smith,  
G. M. Van Ausdall.

Dr. Jennie Christ, formerly of Ames, died at her home in Glendale, California, May 5, 1927, of cancer, after an illness of more than a year.

Dr. Ghrist had practiced in Ames for 25 years. Three years ago, she with her husband, who had practiced in Ames, moved to Glendale, California, near Hollywood, where she had secured a large practice in diseases of children. Dr. David Ghrist and their son, Dr. Orrie Ghrist, are practicing in Glendale and the other son, Dr. David, Jr., is now studying at the Mayo Clinic.

Dr. Jennie Garrison Ghrist was born in Marysville, Marion County, in 1869. On July 3, 1889, she married Dr. David M. Ghrist. In 1895 they both entered the Medical School of Drake University. Two years later, in 1899, graduated from the Keokuk Medical College. In June of the same year they located in Ames.

Dr. Jennie Ghrist was an active and successful practitioner of medicine and an active member in the Methodist church.

Dr. N. M. Smith of Atkins, died at Mercy Hospital, Cedar Rapids, April 4, 1927, at the age of 53 years.

Dr. Smith was born at Sidney, Iowa, February 27, 1874; graduated in medicine at the Iowa State University, December 16, 1912. He married Miss Irene Jacks at Denison, who survives him.

Dr. William Fitzgerald died at his home in Cedar Rapids, July 24, 1927. He had been in poor health for some time but continued practice up to two weeks before his death. Dr. Fitzgerald was born in Rochester, N. Y., February 10, 1853, and with his parents moved to Davenport when a boy. He was educated in the public schools of Davenport. In March, 1876, he graduated from the Iowa University, Medical School, and practiced in DeWitt and Grand Mound until 1890, when he moved to Cedar Rapids.

Dr. Fitzgerald engaged in the general practice of medicine for a period of fifty-one years. He was a member of the Linn County Medical Society and of the State and National Medical Associations. On October 25, 1881, he married Margaret Alice Lawler of Charlotte, who died in 1916.

Dr. Edward E. Krider of Oelwein, died at his home July 3, 1927, at the age of forty-five years, seven months and seven days. He was the son of Eli and Louisa Paul Krider.

Dr. Krider was born on a farm near Parkersburg, Iowa, October 26, 1881. In his early childhood the family moved to Waterloo, where he attended the public schools and in 1900 graduated



DR. EDWARD E. KRIDER

from the Waterloo high school. In 1905 he graduated from the Medical School of the Iowa State University.

On November 7, 1906, he married Wilhelmina E. Stitts of Waterloo, and on their wedding day came to Oelwein to establish a home. Here he began the active and successful work of a medical practitioner.

Dr. Krider first located in Stanley as a general practitioner, but at the end of one year decided to specialize in diseases of the eye, ear, nose and throat and for this purpose took a special course at the Iowa State University, and at the Chicago Post Graduate Medical School. At the conclusion of this course, as above stated, he located in Oelwein. His vacation periods were devoted to special study in his line of work. In 1921 he took an additional special course at the New York Post Graduate School and clinics at the New York Eye and Ear Infirmary.

About five years ago he began to suffer from

arterial hypertension which finally resulted in his death.

Dr. Krider was a member of the Fayette County Medical Society, Iowa State Medical Society and the American Medical Association.

---

### TO PREVENT RABIES

---

It is no longer necessary to send patients to Pasteur institutes for antirabic inoculations. Rabies Vaccine (Cumming) P. D. & Co., is superior in potency to the Pasteur method and may be administered by the physician in the office or at the home with no more technic or difficulty than an ordinary hypodermic injection. There is no gradation of dose; all doses are alike.

We understand that Rabies Vaccine (Cumming) P. D. & Co., is made by the method devised by Dr. James G. Cumming. A one per cent suspension of rabic brain tissue (from rabbits dying of rabies inoculated by an injection of fixed virus) is dialyzed against running, distilled water until the infectivity of the virus is destroyed.

The safety of the finished product is assured by injecting this material beneath the dura of rabbits, and subcutaneously in guinea pigs and mice. Sterility tests are also utilized to insure freedom from bacteria. The vaccine is standardized by weight so that 2 cubic centimeters of suspension, the contents of one of the syringe containers, contains sufficient material for one injection for an adult. The safety and efficiency of Rabies Vaccine (Cumming) P. D. & Co., has been amply demonstrated by its employment in a large series of cases.

Parke, Davis & Company offer a twenty-four page illustrated booklet "Rabies Vaccine, (Cumming)", to any physician on request.

---

### HORLICK'S MILK MODIFIER

---

Horlick's Milk Modifier, a new product made by the Horlick's Malted Milk Corporation, Racine, Wisconsin, is now being introduced to the medical profession. This maltose and dextrin product, which is derived exclusively from malted grains, was first announced at the annual meeting of the American Medical Association in Washington, D. C., in June, and created much interest. Since that time it has been presented to convention gatherings in other parts of the country, and the Horlick representatives are now calling on individual members of the profession.

Horlick's Milk Modifier is presented and supplied to the profession along ethical lines. No feeding directions accompany the package. A statement on the wrapper is to the effect that the product is for prescription by physicians only.

In conformity with the Horlick policy, the Milk Modifier is put up in hermetically sealed glass jars only. The one-pound size retails at 75 cents and the five-pound jar at \$3.00. The fact that it carries

the name "Horlick's" is a guarantee that only the finest materials are used.

In the June 18th issue of the Journal of the American Medical Association, under the heading of New and Non-official Remedies the acceptance of the Horlick Milk Modifier was announced by the American Medical Association. The product differs from the malt sugars in that it incorporates soluble and readily assimilable protein and valuable mineral salts from the grains. The Horlick firm points out this fact as a decided advantage for its product.

Another point which is mentioned as an advantage in favor of the new product is the proportion of its two chief carbohydrates, maltose and dextrin, which are 63 per cent maltose and 19.5 per cent dextrin.

The new Horlick formula apparently has met with pronounced success during a period of trial among physicians in Canada.

Samples of the new product, literature concerning its use, prescription blanks and file cards giving methods of preparation are available for members of the medical profession and will be sent upon request.

---

### BOOK REVIEWS

---

#### REPORT OF THE WORKMAN'S COMPENSATION SERVICE

Seventh Biennial Report of the Workman's Compensation Service for the Period Ending June 30, 1926, and Report of Decisions. By the Department and State Courts. A. B. Funk, Industrial Commissioner.

Commissioner Funk, in his review of the work of the Commission for the biennial period of 1924-1926, shows that while the service was not absolutely satisfactory it was relatively successful, as much as could be expected considering the conflicting interests that must necessarily arise in adjusting claims for real and alleged injuries to the person of men engaged in industries. The work of the Commission has passed the experimental stage, and through the skill and wisdom of the Commissioner has secured the confidence of the public. It is to be assumed that increasing experience and time is eliminating the many misunderstandings that in the earlier days seriously embarrassed the work of the Commission. The dissatisfaction expressed by the medical profession on account of compensation disputes has nearly disappeared due to amendatory statutes which have granted better fees in certain cases. An important suggestion has been offered by the Commissioner which should be enacted into a law by the legislature; and that is, that the waiting period before compensation begins should be shortened to one week instead of the present period of two weeks.

The report contains a resume of the cases which have been before the Commission and appealed, and constitutes an interesting part of the report.



### THE CONQUEST OF DISEASE

By Thurman B. Rice, A.M., M.D., Assistant Professor of Sanitary Science, Indiana University, School of Medicine. The Mac-Millan Company, New York, 1927.

The purpose of this book is to present an outline of what has been done, and what is now being done, to prevent the spread of disease. That we will always have disease germs is quite probable but if we can prevent the spread of infectious and contagious diseases we shall have control of the situation, and if we are always watchful these diseases will practically disappear, but if such watchfulness is not observed unexpected outbreaks may be expected, so far as we know for an indefinite period of time. This we noted on reading the papers read before the International Conference of Tropical American Health Problems held under the auspices of the United Fruit Company. Some disappointment was expressed because of outbreaks of yellow fever where it was believed that the disease had been permanently eradicated. These facts only show that while the disease is under control, constant sanitary watchfulness must be exercised. Dr. Rice presents a short history of early plagues and the helplessness of the people in the face of these diseases, including an outline of the conquest of transmissible diseases, infection and resistance. Then the author follows the course of well known infectious diseases and how they are controlled. The information presented is not only for the medical profession but also for the instruction of the laymen, and for this purpose the book was written in language easily understood by the general public, for whom the work is intended, realizing that the co-operation of the public is essential to the success of the health officer.

### CANNULA IMPLANTS

With Review of Implantation Technics in Esthetic Surgery. By Charles Conrad Miller, M.D., 180 Pages, 11 Illustrations. Price, \$2.00.

In this new book just off the press, Dr. Miller describes a method of implantation with the aid of cannulae. By this technic open incisions are avoided and implantations made with a minimum of trauma and bleeding. Conditions are maintained which best insure the successful retention of the implants. Various methods of implantation and the use of a great variety of materials in esthetic surgery are reviewed. It is unfortunate in American literature during the past quarter century, advocates of many different implantation technics have elected themselves champions of certain technics and have made exaggerated claims for the method advocated. Disadvantages of methods have been minimized and students of the subject have had to learn in the post-operative study of their cases of the disadvantages about which nothing has been said.

Dr. Miller does not pretend to have solved the many different problems connected with this class of surgery, but his impartial review of the subject will be of interest and practicable value to the operator interested in this kind of surgery.

### MANAGEMENT OF THE SICK INFANT

By Langley Porter, B.S., M.D., M.R.C.S., (Eng.), L.R.C.P., (London), Professor of Clinical Pediatrics, University of California Medical School, Etc., and William E. Carter, M.D., Instructor in Pediatrics, University of California Medical School. Third Revised Edition, Illustrated. The C. V. Mosby Co., St. Louis, 1927.

This volume is designed to bring the management of the sick infant within the domain of every practicing physician. It is divided into three main sections. Part I deals with the interpretation of symptoms such as vomiting, diarrhea, constipation, nutrition, hemorrhage, pain, etc. Part II treats of diseases of infancy by systems; respiratory, digestive, circulatory, etc. Part III deals minutely and painstakingly with methods, formulas, recipes, drugs and poisonings.

Contrary to the viewpoint so often painfully evident in books on pediatrics, this volume does not enshroud the management of the sick infant in a haze of controversial discussion which leaves the general practitioner stranded for want of definite instruction. On the contrary throughout the discussion simplicity and directness are the rule and mooted subjects are dealt with but briefly. The authors reflect a generous experience in institutional and home management of infants, appreciating and anticipating the need for a less complicated régime in the latter group.

The book is well indexed which adds greatly to its merit as a reference volume. No illustrations are used in parts one and two, but their absence does not detract from the discussion. In part three there is a generous number of well made photographic illustrations. Bibliographical references are not given, an omission which will prove a disappointment to the student who wishes a more complete discussion of a given subject than can be incorporated in a one volume treatise such as this one is.

R. R. S.

### SHOULD WE BE VACCINATED?

A Survey of the Controversy in its Historical and Scientific Aspects, by Bernhard J. Stern, Instructor of Sociology, Columbia University. Harper and Bros., Publishers, New York, 1927. Price \$1.50.

To practically all of the medical profession there would appear to be but little reasonable justification for an argumentative discussion on the subject of vaccination. However, we are all cognizant of the anti-vaccination movement and for this reason should find much of marked interest and practical

information in this popular, critical and historical study of the factors provoking this persistent opposition to vaccination.

The author of this book has gone very thoroughly into the historical development of vaccination from the sociological and psychological viewpoint and presents the arguments both for and against the procedure from the standpoint of a scientist rather than that of a propagandist. His historical researches are most interesting and complete. His citation to little known historical data is fascinating, especially in the early years of development of vaccination as a prevention agent.

The book is written in popular non-technical language and will prove most enlightening to parents, students of medical history, public health officers and teachers as well as the medical practitioner.

R. R. S.

---

### THE HUMAN BODY IN PICTURES

A Visual Text of Anatomy, Physiology and Embryology, by Jacob Sarnoff, M.D., Associate Surgeon, United Israel-Lion Hospital, Etc., with Foreword by John Osborn Polak, M.D., 190 Original Illustrations. Physicians and Surgeons Book Co., Brooklyn, New York, 1927. Price \$2.50.

The purpose of this manual is to present in popular form the essentials of anatomy and physiology of the human body. It is prepared primarily for use with motion and still picture films for this study but when used alone forms a very useful guide. The illustrations used in the text are taken chiefly from dissections and animated drawings prepared by the author as they appear in the picture films.

The volume, itself, presents no essentially new thought and because of its non-technical presentation will be of little value to the physician or medical student. As a general guide in anatomy for nurses it would probably be sufficiently concise and no doubt if used in conjunction with the picture films prove a superior means of presentation. For a popular course provided for non-medical education it might well be used as a text. R. R. S.

---

### CITY HEALTH ADMINISTRATION

By Carl E. McCombs, M.D., National Institute of Public Administration and New York Bureau of Municipal Research. The Macmillan Co., New York, 1927. Price \$5.50.

With the rising tide of civic consciousness in Public Health Supervision, the need for properly trained health officials and properly informed lay administrators, has become almost imperative. The general mass of private citizens must be informed in public welfare accomplishments and aims. To the end that this educational program may be accomplished, this volume has been prepared. It is unique in the fact that it covers all the functions of municipal health administration, its organization, operation and personnel not only in the field of

preventive practices but also in the program of treatment and care in sickness. That greater good might be accomplished, the volume is written in plain, non-technical language, easily understandable to the layman as well as the scientist. Many of the problems discussed and the detail afforded might seem superfluous to the exceptionally well trained public health official, but to the average official and the general public, untutored in health administration, this attention to detail will prove most welcome and valuable.

The volume is divided into three parts. The first deals in a general way with the functions of the municipal health organization. The second section deals more minutely with the organization and administration of the sickness prevention feature of the organization. Each phase of the organization is considered; the health officer and health employees, their authority and duties; the various divisions of the work and how they are attained; the salaries and expenses to be expected; and the relation of these municipal health services to other health agencies. The final section deals with the municipal program for the care of the sick. Hospital planning and administration, together with problems in medical and nursing service are especially considered.

Throughout the book are citations to conditions as they exist, or have existed, in various cities, illustrative of correct or incorrect practice. This form of illustrative teaching is especially forceful and to be commended. An especially prepared bibliography has been prepared and incorporated in the book as a guide to advanced or special reading.

R. R. S.

---

### THE MODERN PRACTICE OF PEDIATRICS

By William Palmer Lucas, M.D., L.L.D., Professor of Pediatrics, University of California Medical School, Etc. The Macmillan Company, New York, 1927. Price \$8.50.

This text-book, covering the entire subject of pediatrics in one volume is heartily recommended to the student and the practitioner. It incorporates the latest advances in this branch of practice and maintains a well balanced and complete perspective of the older thoughts and practices. Preventive pediatrics is properly stressed throughout the volume but diagnosis and treatment have not been permitted to suffer by reason of this fact. The text has been divided into two general groups; one dealing with infancy, and a second with childhood. Under these general headings are treated those conditions most commonly affecting the particular group. One of the most strikingly complete and authoritative chapters is that dealing with diseases of the blood and blood forming organs. The careful student or specialist cannot fail to find a wealth of useful thought in this chapter which is uniquely thorough for a text of this size. Other chapters especially deserving of mention are those dealing with the infectious diseases, accidents and their



management and the one devoted to therapeutic and diagnostic procedure. The last mentioned chapter cannot fail to be of great assistance to the practitioner because of its brief but sufficiently comprehensive discussion of practically all of the therapeutic and diagnostic procedures employed by the skilled specialist in private or hospital practice.

The generous use of well made photographs illustrating the text as well as the carefully selected group of references at the end of each chapter add materially to the value of the book. R. R. S.

### DENTAL MATERIA MEDICA AND THERAPEUTICS

With Special Reference to the Rational Application of Remedial Measures and Practitioners, by Hermann Prinz, A.M., M.D., Sc.D., Professor of Materia Medica and Therapeutics, The Thomas W. Evans Museum and Dental Institute School of Dentistry, University of Pennsylvania; Member of the U. S. Pharmacopeia and Formulary Committee, American Dental Association, Sixth Edition, Enlarged and Revised According to the United States Pharmacopeia, Tenth Decennial Revision. The C. V. Mosby Co., St. Louis, 1926.

This volume will be useful to the dental student and practitioner who desires readily accessible therapeutic information. The arrangement of the book appears logical and the handy cross reference index makes the subject matter quickly available. Following a general discussion of dental drugs and general preparation, the author has devoted a chapter to anesthetics and a generous appendix containing dose tables, tables of incompatibles, and various conversion tables. The volume is suitably illustrated.

R. R. S.

### ANNUAL REPORT OF THE SURGEON GENERAL OF THE PUBLIC HEALTH SERVICE OF THE UNITED STATES

For the Fiscal Year 1926. Government Printing Office, Washington, D. C.

The usual presentation of health conditions in the United States is fairly good. The birth registration in the United States includes 72.2 per 1,000 of the population of the year, 1923. Reports from thirty states give a rate of seventy-one deaths under one year of age per 1,000 births in 1924 and 71.15 in 1925. In New Zealand for 1923, 43.8 deaths of infants under one year of age per 1,000 births; in England and Wales, 69.3; Scotland, 78.9; in Canada, 1922, 96.8; Holland, 1922, 67.3; Germany, 1921, 138.8; Japan, 1921, 168.3; Ceylon, 1923, 212. Thus, through this section, death rates are given in several leading countries. Considerable space is given to the Scientific Research Division. Much valuable information may be gained regarding this report.

### NEW AND NON-OFFICIAL REMEDIES

Chicago, Illinois, May 27, 1927.

In addition to the articles enumerated in our letter of April 20th, the following have been accepted:

Abbott Laboratories:

Neonal.

Certified Laboratory Products:

Ethylene—C. L. P.

Cutter Laboratory:

Alkali Weed Pollen Extract—Cutter.

All Scale Pollen Extract—Cutter.

Box Elder Pollen Extract—Cutter.

Burning Bush Pollen Extract—Cutter.

Corn Pollen Extract—Cutter.

Foxtail Pollen Extract—Cutter.

Mountain Cedar Pollen Extract—Cutter.

Tumbleweed Pollen Extract—Cutter.

Western Water Hemp Pollen Extract—Cutter.

Fairchild Bros. & Foster:

B. Acidophilus Milk—Fairchild.

Horlick's Malted Milk Corporation:

Horlick's Maltose—Dextrin Milk Modifier.

H. K. Mulford Co.:

Lamb's Quarters Pollen Extract (Glycero-Saline)—Mulford.

Ragweed Pollen Extract (Glycero-Saline)—Mulford.

Timothy Pollen Extract (Glycero-Saline)—Mulford.

Wormwood Pollen Extract (Glycero-Saline)—Mulford.

Parke, Davis & Co.:

Alfalfa Pollen Protein Extract Diagnostic—P. D. & Co.

Kidney Bean Protein Extract—P. D. & Co.

Typhoid Vaccine (Prophylactic).

Typhoid-Paratyphoid Vaccine (Prophylactic). E.

R. Squibb & Sons:

Ovarian Hormone—Squibb.

Swan-Myers Co.:

Ampoules Ephedrine Hydrochloride—Swan-Myers, 0.05 Gm., 1 cc.

Capsules Ephedrine Hydrochloride—Swan-Myers, 0.025 Gm.

Solution Ephedrine Hydrochloride—Swan-Myers, 3 per cent.

H. K. Mulford Co.:

Antivenin (Nearctic Crotalidae)—Mulford.

In addition to the articles enumerated in our letter of June 25th, the following have been accepted:

Lederle Antitoxin Laboratories:

Erysipelas Streptococcus Antitoxin (Lederle) Unconcentrated.

W. A. Puckner, Secretary,  
Council on Pharmacy and Chemistry.

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, OCTOBER, 1927

No. 10

## SOME FUNDAMENTALS IN EDUCATION\*

CHARLES H. MAGEE, M.D., Burlington  
Chairman of Surgical Section

Mr. Chairman: If a boy is headed, say, at his birth, toward being a doctor, the most fortunate thing for him would be to be born of parents possessing a rich vocabulary and who speak the English language properly. I believe I can frame an English sentence correctly, but when I become animated or angry, I drop to my old Southern vernacular; I go back to the lingo used by myself and boy playmates while sitting on the grass devouring watermelons purloined from some stingy farmer. When the boy gets a little older, what would I say for him to do? To become a good speller. There is nothing that offends the eye more than a misspelled word. When he begins to read, he should be urged to enunciate plainly.

As he goes farther, what would I demand? That he read fiction, history, poetry, etc., but at his elbow, during the time, I would have an unabridged dictionary and I would have him go to that as regularly as to his mother. Let him keep his dictionary as long as he lives, and when he looks up a definition, to write it in his book either in the margin or at the bottom of the page. While this practice may mar the appearance of his books, it will work a wonderful thing for him.

As he goes farther, I would suggest that he be not started too soon into the higher mathematics, algebra, geometry, trigonometry, but I would have him well grounded in the rudiments of arithmetic both written and mental. Many a young man studying trigonometry, cannot give the reason for inverting the divisor in division of common fractions. I would have him know how to multiply and divide in decimal fractions and how to point off for decimals either in the one or the other. He should also be well grounded

in partial payments, as this knowledge will be needed through life.

Then again, there is nothing that will so quicken a boy's wits and stimulate him to drop redundant words, as to be in a class of boys in mental arithmetic, and when one of them begins to hesitate and stumble, to call him down. This method of training is a great brain sharpener.

Another important thing is the study of English grammar. I notice so many mistakes not only in conversation, but in the newspapers, for example: "Every one should put *their* shoulder to the wheel." Every one should put *his* shoulder to the wheel. A singular subject requires a verb in the singular number.

Another speaker or writer says, "I ought to have went", for I ought to have gone. A verb should not take the place of a participle in predicate.

Then again, I would have the student distinguish between transitive and intransitive verbs, such as lay a transitive, and lie an intransitive verb, set transitive, sit intransitive. Many a speaker on the platform, or doctor in the sick room will put the one for the other—an offense to the educated ear.

Coming to the study of medicine, what are the fundamentals of this science? We will say, chemistry, the mathematics of medicine; physiology, the romance, the poetry of medicine; anatomy, the geology of medicine. These must be cultivated, but right here allow me to speak of clinical fundamentals—the education of the eye, the ear and the fingers.

In listening to some of the discussions this morning, one would think that all a man has to do in order to examine a patient is to equip himself with a few instruments two, three or four feet long; he would microscope him, he would telescope him, he would horoscope him. Get close to your patient. We read of the ancient Greek phalanx, where the front row of soldiers had short spears, the row just behind longer ones, while the third and hinder how carried the longest. These when presented, were for a long

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



time thought invincible until the Romans got at them with their short swords. So the dangerous enemy, the effective one, is he who gets close to you, and the efficient doctor, the one who seeks effectively to combat disease, is the one who gets close to his patient with the instruments God gave him, the eye, the ear and the fingers. We have read of the great battle of Quebec, where the Highlanders took just one shot at the French, then threw aside their guns and charged the enemy with the broad sword. They got close to their opponents. Let us cultivate those three instruments of precision—the eye, the ear, and the fingers.

Now in regard to scientific fundamentals of medicine: when I began school over forty years ago, chemistry was not taught very well and when I began practice I did not know any chemistry, and throughout my professional life I have held my own in that study. In physiology I had some good teachers, which I supplemented by studying Dalton.

The next fundamental I have studied rather extensively and with great care, and I want to refer briefly to a few points, practical ones, which a thorough study of anatomy makes plain. On one occasion I was at the Augustana Hospital, Chicago, and saw the great A. J. Ochsner trying to pick up the median nerve in the wrist, and he was five or six minutes in getting it and in doing so, cut nearly across the wrist. An anatomist like Treves or Heath or John B. Deaver would have cut down on that in less time than one could count ten.

Coming to my own observations: We will take as an example a case in which an object has lodged in the esophagus. A man lying on the floor is amusing his child by throwing up a silver dollar and catching it in his mouth, and it slips into the swallow. There is sudden spasm of the pharynx and larynx with stridulous breathing like membranous croup. The first thought of the surgeon is, where is it lodged? Now there are three narrow portions of the esophagus; first at the cricoid cartilage, the second is where the left bronchus crosses the esophagus, the third, at the cardiac end of the stomach. The narrowest part is back of the cricoid, so that we can safely say that in forty-nine out of fifty times the foreign body will be found there.

On which side will he cut? The swallow swings to the left side from its origin at the cricoid to where it enters the chest, so the incision is made on the left, with the sternomastoid to the outer side, the subhyoid muscles to the inner. The anterior belly of the omohyoid

comes into view crossing the field of operation. It may be displaced up or down or cut. I prefer the latter. Getting down deeper, he will observe muscular striations running up and down. If not careful the esophagus will be retracted and the surgeon scoring the longus colli. To obviate this difficulty the anesthetist can introduce a uterine sound through the mouth down into the swallow on which the surgeon can cut.

Another procedure to which I wish to call your attention is dissection of the facial nerve. Pick out the parotid gland from among the branches of the facial nerve. As you descend you find loops of the nerve coming down farther and farther, even as low as the cricoid cartilage. One of these branches passes just behind the angle and just below the ramus of the jaw, ending in the under lip. Cutting it would lead to permanent paralysis of the lip, a very inconvenient and unsightly thing. The anatomist bears this in mind.

We will now take up the consideration of anatomy as it applies to tracheotomy. The sternohyoids are wide apart below and come together above; the sternothyroids wide above, close together below. Cutting down this is remembered, the trachea laid bare, the anastomosis of the cricoid arteries across the trachea ignored, the thyroid isthmus cut with impunity if it interferes.

Then there is the thoracic duct; I do not suppose that a dozen of you men, and you are all experts, could find it. I may be wrong, but think I am safe in saying it, I dissected for full ten years and could not find it. Authors would tell me that just back of the point where the internal jugular joined the subclavian vein the duct would be found. I reached that place and tried to get it time and again but failed. There was a vessel each time—a small vein—but not the duct, at least to my mind. Finally after working on the problem for a number of years, I determined that I was going to find the thoracic duct in the neck. So an exploring expedition was planned. I went to the receptaculum chyli in the belly, found the duct as it emerged, traced it through or behind the diaphragm, through the chest running close to the right side of the aorta to the fifth dorsal vertebra, passing under the aorta and along the left side of the spinal column beside the esophagus into the neck, turning outward under the carotid sheath, arching forward over the left subclavian artery entering the vein precisely where the authorities had told me. Then I knew that the vessel I had been finding all the time was the thoracic duct, but blood re-

gurgitating into it colored it dark so I took it for a vein. Once you know where the duct is you can cut with confidence.

I was once called in consultation in the case of a little boy with pain and tenderness over the appendix. He had a short cough and rapid breathing, temperature 103. The doctor said, "I am not sure whether this is appendicitis or not". We went over him carefully, especially the chest and region of the appendix, and shook our heads. The father stood by and finally said, "By the jumping Jehoshaphat, I am going to get a doctor who knows sumpin'". So he brought in an old German doctor who promptly pronounced it pneumonia, and it was pneumonia. I can laugh at the incident now, but I did not for a good while. The lower intercostal nerves in their course downward end in the belly wall over the appendix, making it hard, especially in children, to say which is which.

I could go on for quite a while in regard to these things, but it is hardly necessary. Doctors, and especially those practicing surgery, know as well as I do how necessary it is for a man to have a fighting idea of anatomy.

The man who studies anatomy to be applied to surgery does something extremely creditable, but if he studies it for that alone he loses half the beauty that there is in anatomy. To be thoroughly appreciated it must be studied for itself alone. The subject is one so profound that through it the student glimpses Wisdom Divine, and so accurate is it that the investigator feels that his feet are on the Rock of Ages.

Many and many a time I have worked in my dissecting room till late in the night, and have perhaps made a discovery of something I did not know before, or corrected a mistake I had been laboring under for a number of years, and I must say that I had an exalted feeling much like I would have when standing on the brow of a mountain or by the shore of the sea.

We will say that I have had for my night's task the removal of the brain; have noted its coverings, its divisions, the superficial origin of the nerves, and explored the venous sinuses.

It may be that the chest has been my lesson, the lungs, the heart with its cavities and valves; or the foot with its arches, tendons, and tie beams; or it may be that there has been a thorough dissection of that most wonderful of all instruments, the human hand, and then, looking at it with its muscles, its nerves, its vessels and its tendons, like the Prophet Daniel I have dreamed dreams. I have imagined it the hand of an

author, say of Plutarch who penned those wonderful Lives that have made us acquainted with the orators, the scholars, the poets and the heroes of ancient Greece and Rome. Or the hand of William Shakespeare, who delineated those great characters, Hamlet, King Lear, Shylock, Macbeth and Iago; or of Cervantes, who has carried us in company with Don Quixote and Sancho Panza all over sunny Spain; the hand of Robert Burns who penned those immortal lyrics; with him I have sat down and drunk and sung among the Jolly Beggars, and ridden from Ayre to Alloway with drunken Tam'O Shanter. Or the hand of Mark Twain, who has taken numberless readers over the bosom of the Father of Waters with Tom Sawyer and Huckleberry Finn. I have considered the hand of the painter who can throw on the canvas "The Last Supper", "The Angelus", or "Washington Crossing the Delaware", or the hand of the skilled musician that can make the air vibrant with melody.

And then I have pictured it the hand of the American boy, the boy on whose shoulders falls the brunt of battle in time of war and on whose valor we depend for the preservation of our institutions and our liberties and our very lives. And as I looked at it, a spirit of supreme confidence has come into my very soul; I have felt that that hand, whether it was the hand of a white boy or a black one, the hand of a Jew or a Gentile, the hand of a Roman Catholic or a Protestant, an agnostic or a mormon, if danger were to threaten our country, that hand would grasp a weapon in defense of the flag.

Then I have thought of the martyrs, the men and women who have labored for society and have given up their lives for their fellow men; Stephen, who was stoned; Joan of Arc, who was burned at the stake; Nathan Hale, who was hanged; Edith Cavell, who was shot.

And finally I have thought of a Great Teacher, a man who went out among his fellow men with strange doctrine, a heretical doctrine for that day and age. To a world torn with strife, bloodshed and war, He brought a message of peace: "Blessed are the peacemakers", he said; and to a world where might made right—an eye for an eye, a tooth for a tooth, a life for a life—He brought a message of love: "A new commandment I give unto you, that ye shall love one another." For these heresies He was apprehended, tried, condemned and led away to execution. Thorns were placed on His head, and through the hands that were always ready to succor and to save, nails were driven and He was lifted up on the Roman cross.



Mr. Chairman, I believe that the study of the structure of man leads one imperceptibly closer to Him who breathed the breath of life into the nostrils of man. The true student will find the baser passions slipping away from him, such as hate and strife and egotism, and he will be inspired more by integrity, by charity and humanity.

"What a piece of work is man, how noble in reason,  
How infinite in faculty. In form and moving how  
express and admirable,  
In action how like an angel, in apprehension how  
like a god."

#### INDICATIONS FOR SURGICAL TREATMENT OF DUODENAL ULCER\*

LESTER D. POWELL, M.D., Des Moines

Duodenal ulcer as a clinical entity has been recognized since 1817, although the surgical treatment was not instituted until many years later. Prior to 1881 the field of gastric surgery was practically unknown. The treatment of gastric and duodenal lesions was considered a medical procedure. No doubt such a choice of treatment was a judicious one in so much as the surgical treatment was accompanied by a mortality too great to be popular.

In his review of early gastric surgery Murphy<sup>1</sup> stated that gastroenterostomies made by means of suturing had a mortality of approximately 42.8 per cent. After the institution of the bone plate for making the anastomoses the mortality was reduced to about 24.5 per cent, which if compared with the present mortality is uncomprehensibly high. Such results were not due to lack of surgical judgment nor faulty technique. We do not challenge the judgment nor the surgical prowess of the pioneers of the upper abdomen. They were alert and observing with unwavering determination to make gastric surgery a safe and scientific procedure. The pleasing results obtained by operators of today were gained through a knowledge of the unpleasant results of the operators of yesterday.

Pean<sup>2</sup> has been given credit for the first pyloroplasty—this being in 1879. Unfortunately his case did not survive. Billroth and his associate, Wolfler, later made an attempt at pyloroplasty and were successful. The resection was followed with an end to end anastomosis and today such an operation is known as the Billroth I type of resection. This operation in a large

percentage of cases was not a success because of leakage in the line of suture and later Billroth devised another operation which has generally been more satisfactory. It was known as the Billroth II type of resection. The Billroth operations were performed for cases of pyloric obstruction of cancerous nature. Surgical treatment was the only procedure that offered any relief and at the same time prevented starvation, but not in all such cases was resection possible.

According to Deaver,<sup>3</sup> it was on September 28, 1881, that Wolfler and his assistant Nicolandini were operating on a case of pyloric obstruction due to malignancy. It was a case in which resection was out of the question. Nicolandini suggested that an anastomosis be made between the small intestine and the stomach. Wolfler followed Nicolandini's suggestion and has been given credit for performing the first gastroenterostomy. The operation was of the anterior gastroenterostomy type and it was some time before von Hocker performed the first retrocolic type of gastroenterostomy.

Gastrointestinal surgery received an unusual stimulus through the success of Wolfler and Nicolandini's operation. Many workers began experiments with various methods to relieve starvation in cases of duodenal obstruction. Their goal was to lower mortality and still relieve obstructive symptoms. Senn introduced the bone plate for anastomoses and reduced the death rate to about 24.5 per cent. Murphy devised and popularized the Murphy button.

In 1886 Heineke and Mikulicz working independently and without knowledge of the other's work, performed identical operations for benign obstruction of the duodenum to enlarge the outlet and their operation is now known as the Heineke-Mikulicz pyloroplasty.

In 1892 Finney described a different type of pyloroplasty which gave very satisfactory results in selected cases and the operation is known by his name.

Divulsion was practiced by Loreta<sup>5</sup> but proved unsatisfactory and was discarded.

Jaboulay added his operation of gastroduodenostomy and many other operators added much during the evolution of gastric surgery.

The palliative operations for cases of obstructing pyloric malignancy paved the way for the more valuable surgical treatment of duodenal obstruction which is most commonly due to contracting scar tissue secondary to chronic ulcers of the duodenum. Any one operation is satisfactory in selected cases but not a cure for all of the varieties of pathology of the duodenum.

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

The number of different operations created for treatment and cure of duodenal ulcer presented before 1900 is conclusive proof that surgery was becoming a more recognized form of treatment than it had been during the preceding decade. Along with the increased frequency of operation for duodenal ulcer the operators visualized and learned more about the pathology of such lesions. They also were given an opportunity to study the results obtained surgically. Their failures to obtain relief in certain types of cases were compared with the cases in which complete and permanent relief had been obtained. The surgeons learned that all patients could not expect to be cured. Some cases would even fail to get relief from symptoms which caused them to submit to an operation. Too, they learned that some patients with apparently quite active symptoms would obtain relief from medical care and never require surgical intervention.

That some duodenal ulcers do heal with medical management is beyond a question.<sup>6</sup> Also some individuals have duodenal ulcer and are never aware of the fact. The condition may never be recognized until after death from some other cause and necropsy examination shows the scar of a healed ulcer.

In patients with duodenal ulcer surgery has been a boon to untold numbers when properly performed in the group having indications for surgical treatment. On the other hand, many individuals have had their abdominal distress aggravated by the charlatan or ignorant operator who has performed a needless operation on an individual where the indications were absent. It is a difficult matter to get all medical and surgical men to agree on the indications for surgical treatment of duodenal ulcer.

Murphy<sup>7</sup> stated as recently as 1914 that "All duodenal ulcers are operated if they are demonstrable. In the early stage, if you make the diagnosis, it is a surgical case at once, just like appendicitis, because even if the ulcer does heal it will recur as in this case. Remember the average history of duodenal ulcer is twelve years of suffering. Then they go to the surgeon for relief."

Today the mere presence of a duodenal ulcer does not prove that surgical treatment is indicated. In many instances the immediate surgical interference is contraindicated. I dare say that most gastroenterologists, as well as surgeons, will take issue with the opinion Murphy expressed in 1914. There is no doubt that many cases are surgical from the time of their recog-

nition, while others are not and never become surgical.

As previously stated, symptoms may be wanting or only brought to the attention of an individual accidentally or at necropsy.

The ulcer which we discover by accident in the living usually makes its appearance by hemorrhage or perforation. In such cases a careful inquiry into the history commonly discloses the fact that there had been gastric symptoms previously.

The most common symptoms that bring the ulcer patient to the physician or surgeon are those of periodic or seasonal dyspepsia associated with varying degrees of pain which can be relieved by ingestion of food or soda. The pain which has a definite time of appearing comes usually two to four hours after meals and frequently is most distressing at night when the stomach is empty.

With the presence of an ulcer it is not uncommon to have an associated pylorospasm which causes a retention. This is frequently associated with pyrosis, eructation of gas, nausea and not uncommonly associated with vomiting of ingested food and highly acid fluid which may even appear to affect the teeth.

The symptoms of duodenal ulcer with complications are those of perforation, hemorrhage and chronic obstruction which may be mechanical, due to extrinsic factors or intrinsic due to the secondary contraction of scar tissue.

By means of a good history, laboratory findings, roentgenological aid and a careful physical examination, a diagnosis of duodenal ulcer can usually be considered very accurate. The late Dr. Carman<sup>8</sup> has estimated that it is possible to make a correct diagnosis in approximately 93 per cent of the cases.

With a diagnosis made, our next consideration is that of treatment. The treatment necessarily must be either medical or surgical. Let us first consider the treatment of the duodenal ulcer without complications: a case with no obstruction and a rather short history. Such a case in most instances rapidly improves with medical management. The difficulty encountered in a case of this kind is the failure on the part of the patient to recognize the necessity of prolonged dietary measures. They have not had enough gastric distress to make them recognize the necessity of persistent care and months of cooperation with their physician. In such cases surgical treatment fails in many instances and should not be resorted to unless medical treatment has first been tried and found wanting.



For several years Eusterman<sup>9</sup> has been considering various groups of patients that respond to medical treatment and also those in whom surgical treatment has not proven satisfactory and he has concluded that surgery is contraindicated in neurotic, asthenic, mentally or constitutionally inferior individuals in whom the symptoms are not marked; also contraindicated in young individuals with a short history of gastric distress until medical treatment has failed. Better results in such cases are obtained from medical management. It is generally accepted by such men as Balfour,<sup>10</sup> Cabot,<sup>11</sup> Monson,<sup>12</sup> and McKelvey,<sup>13</sup> that the small superficial ulcer with a short history and without complications should first have a fair trial with medical treatment before being subjected to surgery. If such cases do not respond after several weeks of treatment or if there is recurrence of symptoms, surgery is indicated.

Another type of case could well be considered for medical treatment were it not for the economic element, the case with intermittent ulcer symptoms in a poor individual or a bread winner. Most patients cannot afford a long drawn out medical observation and in this class of individuals it is perhaps better to advise surgery. Surgery not only obtains relief more quickly but gets results which are more prone to be permanent.<sup>14</sup> The patients in whom surgery is always definitely indicated are those with symptoms complicated by hemorrhage, perforation and obstruction.<sup>15</sup> Hemorrhage rarely has to be treated as an emergency operation and it is safer in the ordinary hemorrhage case to treat expectantly. Cases with repeated hemorrhages should be transfused and operated immediately. Because of the fact that ulcers bleeding before surgical intervention have a tendency to bleed after operation it is best to attack the ulcer directly. This may be done with the cautery as advised by Balfour<sup>16</sup> or excised as practiced by Judd.<sup>17</sup> The procedure may or may not be accompanied by a posterior gastroenterostomy.

Perforation is the most formidable complication associated with duodenal ulcer. Commonly its onset is sudden, excruciatingly painful and followed by most profound shock. If the pathology is not recognized, a great majority of such cases are fatal, although we all recognize that a perforation of a duodenal ulcer may be protected by the omentum or other viscera which prevents leakage and subsequent peritonitis.

It is not possible to diagnose the point at which a duodenal ulcer perforates before opening the abdomen but it is a recognized fact that

the majority of ulcers are present on the anterior surface and consequently the greater number of perforations would be expected at such a location and require early surgical intervention.

It is much better to err on the side of safety and operate immediately if an early diagnosis of perforated duodenal ulcer can be made. The surgical procedure should be rapid and careful closure made of the perforation and a posterior gastroenterostomy established. This procedure is not always possible because of the poor condition of the subject but Deaver<sup>18</sup> feels the added risk of the gastroenterostomy being made at the time the perforation is closed is in most cases justified. When the judgment of the operator is against making a gastroenterostomy immediately following closure of a perforated ulcer, it is necessary to perform the gastroenterostomy at a later date in so much as a perforated ulcer is not a healed ulcer and symptoms of obstruction or chronic dyspepsia, and not uncommonly a recurring perforation, are prone to occur after the simple closure of a perforation.

Chronic obstruction from any cause requires surgical treatment and has been the most outstanding indication for surgical interference from the inception of gastric surgery. According to W. J. Mayo<sup>19</sup> the more marked the obstruction and its secondary dilatation of the stomach, the more satisfactory are the results obtained from operation. In such cases he recommends posterior gastroenterostomy. Cases with obstruction are recognized as increased surgical risks because of dehydration and lack of resistance. McVicar<sup>20</sup> and his associates have studied a large group of the cases with duodenal ulcer and obstruction. They have recognized the increased surgical risks of these cases and attribute the cause to dehydration and changes of blood chemistry, which produce a toxemia associated with a rise of the blood urea, a fall in the plasma chlorides and increased carbon dioxide combining power. The condition is one of alkalosis. They have given the cases of duodenal obstruction pre-operative treatment consisting of bed rest, frequent gastric lavage, forced fluids subcutaneously, rectally and intravenously. The fluid given intravenously consists of a 10 per cent glucose and 1 per cent sodium chloride solution. This not only overcomes the dehydration but the glucose acts as nourishment and the salt solution supplies the needed chlorides. By such care the seriousness of a necessary operation is made minimum.

The patient having a chronic duodenal ulcer with obstruction who receives medical treatment

for a longer period than is necessary for surgical preparation is being poorly managed because it is in this type of a case that the risk associated with prolonged medical treatment is greater than the risk of an operation.

Before concluding I wish to consider briefly a few of the surgical procedures most suited for treatment of duodenal ulcer. They may be classed as radical and conservative.

The operators who believe in radical treatment favor resection of the stomach to procure a permanent anacidity. Finsterer<sup>21</sup> has reported 90 per cent of his cases as being symptom free after this procedure and further states that the operation is as safe as gastroenterostomy. It appears to the conservative person that the removal of so much normal tissue is extremely radical. Good results may be had by less destruction. Balfour, Deaver, Moynihan and Sherren have had universally satisfactory results with a conservative procedure—namely, the posterior gastroenterostomy.<sup>22</sup> Balfour reported 88 per cent cured.

Deaver reported 80 per cent cured—10 per cent benefited.

Moynihan reported 90 per cent cured.

Sherren reported 92.6 per cent cured.

Lewisohn<sup>23</sup> is not so satisfied with the gastroenterostomy and has reported unsatisfactory results due to gastrojejunal ulcers in 34 per cent and consequently favors the radical procedure.

Finney and his followers obtain splendid results by means of a plastic operation on the duodenum which permits one to visualize the interior of the duodenum for the possibility of multiple ulcers but the procedure is more limited in its scope. To make a satisfactory pyloroplasty the ulcer should be in the proximal portion of the duodenum which can be easily mobilized.

In cases with acute inflammation, chronic indurated ulcers, or ulcers with obstruction and secondary dilatation of the stomach the results are not as satisfactory as the results obtained by means of gastroenterostomy.

Small superficial ulcers of the duodenum without obstruction, which are located on the anterior surface and near the pylorus, have been treated satisfactorily by means of simple excision of the ulcer which includes a portion of the pyloric sphincter.

Any one operation may be ideal for selected cases and unsatisfactory in others. Posterior gastroenterostomy has given splendid results in most cases and is beneficial in many cases where other types of operative procedures have failed.

C. H. Mayo has stated:<sup>25</sup> "Gastroenterostomy, even with its indiscriminate application, has been eminently successful."

The immediate beneficial results of surgical treatment do not relieve the patient of certain ulcer predisposing factors as foci of tonsils, teeth, etc. Nor does an operation permit one to forget medical dietary measures. Pre-operative and post-operative medical observation helps to obtain satisfactory surgical results as definitely as surgical treatment helps to obtain satisfactory results in medical failures.

Either medical or surgical treatment will give brilliant results in selected cases but the best results are obtained when there is harmonious cooperation between the advocates of medical and surgical treatment.

### CONCLUSIONS

1. Cases of duodenal ulcer with a short history in a young individual should be given a fair trial with medical treatment.
2. All duodenal ulcers complicated by hemorrhage, perforation or chronic obstruction should receive surgical treatment.
3. Chronic indurated duodenal ulcers or ulcers with intermittent symptoms in an individual who cannot afford the time necessary for medical treatment should receive surgical treatment.
4. Cases with chronic obstruction secondary to contracting scars of duodenal ulcer should receive medical treatment until the blood chemistry changes are near normal.
5. No one operative procedure is satisfactory for all types of duodenal pathology.
6. Resection of large amounts of normal stomach tissue for cure of duodenal ulcer is too radical in the light of equally good results obtained from more conservative operations.
7. Medical and surgical treatment each have a definite place in the management of duodenal ulcer but the most ideal results are obtained through their cooperation.

### BIBLIOGRAPHY

1. Murphy, J. B.—Cholecysto-intestinal, Gastro-intestinal, Entero-intestinal, Anastomoses and Approximation Without Suture. *Medical Record*, Vol. xlii, pp. 665-676, Dec. 10, 1892.
2. Mayo, W. J.—Quoted—Surgery of the Stomach. *Medical Record*, Nov., 1894, pp. 580-582.
3. Deaver, John B.—Gastro-Enterostomy. *S. G. & O.*, Vol. xxxvii, 1923, pp. 144-148.
4. Mayo, C. H.—Quoted—Gastro-Duodenostomy—Its Indications. *S. G. & O.*, Vol. xxxviii, 1924, pp. 583-587.
5. Finney, J. M. F.—Quoted—A New Method of Pyloroplasty. *Bul. of Johns Hopkins Hosp.*, Vol. xiii, 1902, pp. 155-160.
6. Judd, E. S.—Gastric and Duodenal Ulcers. *Collected Papers of the Mayo Clinic and the Mayo Foundation*, xvi, 1924, pp. 45-49.
7. Murphy, J. B.—The Clinics of John B. Murphy, Vol. iii, 1914.
8. Carman, Russell D.—Personal Communication.



9. Eusterman, Geo. B.—Treatment Following Operation for Ulcer of the Duodenum and Stomach. *S. G. & O.*, xiii, pp. 161-166.
10. Balfour, D. C.—The Cases against Gastro-Enterostomy. *J. A. M. A.*, 1924, Vol. xxxiii, pp. 603-606.
11. Cabat, Verne S.—Surgical Treatment in Duodenal Ulcer. *Minn. Medicine*, 1926, Vol. ix, pp. 248-250.
12. Monson, R. B. P.—The Present Position in the Diagnosis and Treatment of Chronic Gastric and Duodenal Ulcer. *The Med. Jour. of Australia*, Dec. 6, 1924, pp. 597-600.
13. McKelvey, John L.—Duodenal Ulcer. *The Med. Jour. of Australia*, Dec., 1924, pp. 594-597.
14. Hunt, V. C.—Personal Communication.
15. Balfour, D. C.—The Treatment of Chronic Duodenal Ulcer—Moderation in All Things. *S. G. & O.*, Vol. xlv, pp. 269-271.
16. Balfour, D. C.—Surgical Treatment in Bleeding Type of Gastric and Duodenal Ulcer. *J. A. M. A.*, 1919, Vol. lxxiii, pp. 571-575.
17. Judd, E. Starr—Excision of Ulcer of the Duodenum. *Transactions of the Western Surgical Association*, 1921.
18. Deaver, John B.—Duodenal Ulcer. *The Surgical Clinics of North America*, Vol. v, No. 6, pp. 1469-1474.
19. Mayo, W. J.—Personal Communication.
20. McVicar, Chas. S.—The Treatment of Toxaemia Associated with Gastric Stasis, Obstructive and Non-Obstructive. *Minn. Med.*, 1925, Vol. viii, pp. 429-433.
21. Finsterer, Prof. Dr. Hans.—The Surgical Treatment of Ulcer of Stomach and Duodenum. *S. G. & O.*, Vol. xxxvi, 1923, pp. 454-457.
22. Douglas, John—Quoted—The Surgical Treatment of Gastric and Duodenal Ulcer.
23. Lewisohn, Richard—The Frequency of Gastro-Jejunal Ulcers. *S. G. & O.*, 1925, Vol. xl, pp. 70-76.
24. Judd, E. Starr—Ulcer of the Duodenum. *Minn. Med.*, Vol. ix, No. 6, 1926.
25. Mayo, C. H.—Quoted—Gastro-Duodenostomy: Its Indications. *S. G. & O.*, 1924, Vol. xxxviii, pp. 583-587.

### Discussion

Dr. Paul A. White, Davenport—Dr. Powell has presented a safe and conservative review of the situation regarding duodenal ulcer. A few years ago opinion seemed pretty well settled with respect to the treatment of duodenal ulcer. It is true there was rather sharp division into medical and surgical camps with forceful contentions for the merits of each method, but each seemed well satisfied with the results of the method used. A policy formulated abroad and advocated most strongly in this country by Finsterer and Lewisohn in which radical resections are done for duodenal ulcer has done much to upset this complacency. It seems difficult to reconcile the statements of Balfour, Moynihan, Deaver, and others, who find 90 per cent excellent results from gastroenterostomy, with those of Finsterer, Lewisohn and a few more who report 35 per cent to 40 per cent failures from the same operation. Such a divergence of opinion serves only to confuse those who are seeking for the truth in the situation. This brings up the question in the mind of a man who does not have a thousand cases to report upon regarding the medical and surgical treatment of duodenal ulcer, what it is that is really effective in curing this affection. Therefore I found interest in reviewing a group of forty cases in which we had made a diagnosis of duodenal ulcer and advised regarding treatment previous to two years ago. The duration of symptoms in these people ranged from forty years to nine months, with an average of six years. The ages varied from seventy-two to twenty-three. The appendix had been removed elsewhere with some improvement in two instances. In eleven,

or 23 per cent, there were serious complications; one acute perforation, one obstruction from cicatricial contraction in an old healed ulcer with a recent ulcer near it, three with marked hemorrhage, and six with rather extreme and varying degrees of obstruction, pain, and misery produced by a subacute perforation and periduodenal inflammation. I found that we had recommended operation in twenty-one, or 52 per cent, of these forty cases. This included the eleven cases with serious complications before mentioned. Surgery was advised in the remaining ten because of recurring misery over a period of years, often in spite of medical treatment, interference with nutrition, and disability for the patient's occupation. We operated upon twelve, four were operated elsewhere, and we do not know whether or not five followed the advice given. Excision of the ulcer, division of the pylorus, and transverse suture was the only procedure in one, gastroenterostomy was done in eleven, and the appendix also removed in nine. Because of repeated subacute perforations, inflammatory induration, and fixation of the duodenum, excision of these ulcers or radical resection of the stomach and duodenum would have been very difficult and attended with greatly increased risk for the patient. There were no deaths, and surgical complications in but two. One man aged sixty-five, much reduced by his long illness with perforation and partial obstruction, developed pneumonia, and one obstruction at the stoma occurred by folding back of the distal limb of the jejunum and its adhesion in this position. This was relieved at secondary operation and enteroenterostomy with a Murphy button performed with complete recovery. I found then, that we had operated upon the patients with serious trouble and complications such as hemorrhage, perforation and obstruction. The results were practically 100 per cent. Only two have had subsequent trouble which was readily corrected by regulation of the diet. As Dr. Powell has stated, it is in this group that best results are obtained. If a person has had a great deal of misery he greatly appreciates a large measure of relief, whether it is perfect or not. The patient with moderate symptoms, and especially with a neurotic background as many ulcer patients have, is likely to condemn the surgeon for not making his life one of perfection. We are not so well satisfied with the medical treatment of these cases. There were twenty-four in this group that so far as we know were not operated upon. We had advised five of them to have an operation. I do not know what the experience of others similarly situated has been, but this review disclosed that most of the patients under ulcer management dropped from observation and reach after a relatively short interval in spite of persistent efforts to keep them on the regime. Most of them obtained prompt relief which doubtless they considered sufficient, some probably drifted into other hands, some perhaps were cured. All tire sooner or later if extreme measures regarding diet, alkalization, and rest are enforced. We have been

more optimistic regarding medical treatment since adopting much of the plan outlined by Alvarez in a recent number of the *Journal of the American Medical Association*. This discards most of the intensive regime before mentioned, together with the idea, probably mostly illusory, that medical treatment is going to cure the patient. The patient is given a mixture of one quart of milk, one-half pint of cream, and two eggs, with instructions to drink a glass of it at 10 a. m., 2, 4, 8 and 10 p. m. Alkaline powders are given after meals if the symptoms seem to warrant it. This treatment is easy to carry out. The patients are ambulatory and go on with their work, and are relieved of their misery and pain at least until complications as hemorrhage or obstruction indicate the necessity for surgery. When the symptoms are unrelieved by this regime it usually means that an obstructive lesion is present, the patient is then willing to seek surgical relief, and it is in this group that best results are obtained and the most gratitude felt for what has been accomplished.

**Dr. Donald Macrae, Jr., Council Bluffs**—In view of the comprehensive study presented by the essayist, I do not believe there is any possibility of covering additional ground. However, I will say that I believe as Moynihan does—that in many of our cases in which the patient is not relieved by surgery, this result occurs for one of three reasons: First, the surgeon has not used the proper method of operating the individual case; second, he has not operated properly, and, third, the patient has no gastroduodenal disease at all, therefore the surgeon has operated on a normal organ. Moynihan will tell you of the cases that he has operated or reoperated from other surgeons, in which it is astonishing to find the large proportion of patients who show no evidence of ever having had an ulcer. I am convinced that if we will investigate the postoperative cases that are not doing well, we will find that the gastroenterostomy or whatever we have done is not working properly; something has happened to it afterwards that has destroyed the results we hoped for at the time of operation. We have had a number of cases here, and I think all of you have had the same experience, in which we have found practically classic symptoms of duodenal ulcer, with beautiful x-ray pictures showing ulcer of the duodenum, and on going in we have found no ulcer at all. Some years ago, before the x-ray had been brought to its present point of efficiency, a doctor's wife was operated for duodenal ulcer by one of the greatest surgeons in the United States, posterior gastroenterostomy being done. Later the patient died, and it was shown that she had nothing in the line of ulcer, but instead an immense dilated esophagus with cardia spasm. In Council Bluffs we have had cases with marked symptoms which have been treated by the Sippy method, and no ulcer was present. If we are going to operate for ulcer, let us be sure of our diagnosis after opening the abdomen. The pyloric valve sometimes fools even an

experienced man. You have the history and a picture of the suspicious part, and you do gastroenterostomy—are you sure of ulcer? In all probability the patient has gall-bladder disease, appendicitis, or some other condition which is producing the symptoms. Many cases of so-called ulcer of the stomach have been operated a number of times. In one case here that was subjected to a posterior gastroenterostomy, the patient had been operated ten times and still there was no relief. In spite of so many scars she insisted on having something more done, as she was vomiting all the time. We went in and found such a mess that we could see only part of the stomach. I did not know where to go or what to do, so we decided to make an opening in the stomach first, as we often do when in doubt, insert the finger and in this way find out what is the trouble. We could not see much stomach here, but to illustrate (drawing on blackboard): I made an opening in here, put my finger up through the pyloric opening and found nothing that felt like an ulcer, but there may have been one at some time. Then again, through this opening in the stomach we found a double-barreled affair like this: A gut here, another one here—the food was going from the stomach through the pylorus and back up into the stomach. This woman had had a gastroenterostomy and it was a failure. We performed a duodeno-jejunosomy and patient is now well. I doubt the ulcer story. Another thing we did that I have not heard of before. With the index finger in the stomach I found it comparatively easy to pass through the pylorus on down around the pancreas to a point below the stomach. By pushing upwards we were able to dissect out the gut and do the enterostomy. I really did not think this technique possible.

**Dr. Walter L. Bierring, Des Moines**—In the discussion of any border-line condition it is difficult to formulate indications that are applicable to all cases. Much of this discussion has naturally been along surgical lines. It is admitted by the essayist that there is a certain definite group of cases of duodenal ulcer that are relieved by medical treatment, and he is wise in saying that these should be confined to young persons and usually to those in whom only the first set of symptoms appear. But it should be remembered further that after the ulcer has healed, a much longer time is required for a restitution of normal function than in the case of any other ulcerated condition, and it is the faithful and persistent cooperation of the patient with his attendant that determines the successful outcome of the case. Of course, we all endorse what has been said about the long medical supervision required. While not in any sense as expensive as surgery, still, because of the prolonged hospitalization, this method of treatment becomes a financial burden, and there is no question that for economic reasons the working man, after a diagnosis of duodenal ulcer



has been made, is best served by a gastroenterostomy. When the condition of chronic obstruction or stenosis in the upper gastrointestinal tract, is developed, attention should be directed to the effect of this condition upon the general system, which has been referred to by the essayist, because of the faulty digestion and metabolism, vitality is lowered and chemical changes lead to alkalosis, anemia, and other forms of disturbed nutrition. The gastroenterostomized individual also presents a distinct entity that calls for special attention. The secretion of gastric juice is gradually lowered, and the digestive function is not the same as in the normal individual. I would like to cite one instance of where a previous gastroenterostomy was of rather peculiar benefit to the patient in the later development of a carcinoma of the stomach. A gastroenterostomy was performed because of pyloric stenosis. At the time of the operation the pathologic changes were those of chronic ulcer near the pylorus. About a year later a real carcinoma developed in the older ulcer area completely occluding the pylorus. Because of the gastroenterostomy it was possible for the patient to take food for a long time without distress and proved a distinct comfort during the carcinomatous period.

**Dr. John F. Ritter, Maquoketa**—It is with hesitancy that I would speak following the learned discussions we have had on the subject of duodenal ulcer, but I am tempted to spring an innovation in a tentative, more or less experimental way, regarding these chronic cases. It appears to me that one thing we have neglected is the vascular syndrome, whether the case is gastric or duodenal. My experience is quite limited, being only that of something over a score of cases, but invariably I have found a very low pulse pressure, the systolic in the neighborhood of 100 m.m. of mercury over a diastolic of approximately 85. That is the extreme, the systolic ranging from 100 to 120, with a relatively high diastolic. This gives us essentially a low pulse pressure, representing a meager systemic metabolism, and it also leads to the suspicion of adrenal or interstitial involvement, or both. At least in twenty-four cases treated with the cooperation of Dr. Spruce of Chicago, the administration of interstitial serum has given absolute clinical relief in every case. Twelve of these cases were diagnosed under the x-ray either in Chicago, Iowa City, or Rochester. The history of the first three cases dates from November, 1923, and all present every evidence of perfect health. The first case treated experimentally has reported regularly up to last week, and presents every evidence of robust health and apparent recovery. I merely bring this matter to your attention. It may be that others will fail to secure the same results, but with institutional care and your cooperation before resorting to operation, I am confident that this treatment will relieve many patients whom we have heretofore felt obliged to operate.

## INDICATIONS FOR USE OF ELECTROTHERMOPHORE IN CORNEAL ULCERS\*

### *With Case Reports*

J. E. ROCK, M.D., F.A.C.S., Davenport

Corneal ulcers of almost any etiology are rather notoriously difficult to treat, to accomplish a result that is satisfactory to the patient, as such satisfaction in corneal conditions is regulated by the amount of vision that is retained or regained.

It is always a source of wonder how a slight, faint looking corneal scar in the proper position can interfere so materially with the vision.

It is not the intention in this short paper to deal with causes of ulcers of the cornea at all, nor is it the idea to go into the various methods of treatment that are advocated, but simply to present several cases which illustrate the efficacy of the Shahan electro thermophore in the handling of corneal ulcerations of several varieties and causes.

The thermophore is an electrical instrument gotten out by Dr. W. E. Shahan of St. Louis, Missouri; and while it is probably familiar to all of you, I will describe it very briefly, as taken from the circular which comes with the instrument from its manufacturers, V. Mueller & Company of Chicago.

The thermophore consists essentially of a thermo-regulating apparatus (A) and a number of conductors, 1, 2, 3, 4, 5, 6, 7, 8. These conductors are intended to store up heat and conduct it directly into the tissues. The ends of these conductors are the contact surfaces. They are mostly circular and range in size from a point to about 13 millimeters in diameter. In the end (B) of the thermo-regulating apparatus there is a receptacle into which any chosen conductor may be slipped and held by a set screw or spring while it is in use.

When it is desired to use the instrument, a conductor with contact surface of suitable size is put into the receptacle at (B) and the plug (C) is screwed into a 110 volt electric socket. As soon as this is done the pilot light (D) will likely glow. If it does not, the regulating screw (E) should be turned in the plus direction as indicated by the arrow engraved upon it until it does glow. The mercury in the thermometer (F) will shortly begin to rise and the pilot light will cease to glow. The mercury will slowly continue to rise for a short time and then become stationary. During this time the pilot light will glow intermittently. The pilot

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.

light glows only when the instrument tends to cool, and ceases to glow when it becomes too warm.

If the temperature is not high enough, give the regulating screw another short turn until the pilot light glows, then wait for the pilot light to go out. Continue turning the regulating screw at short intervals, waiting each time for the pilot light to go out, until the mercury is within a few degrees of the desired point, then let the instrument sit on the table until the temperature has become stationary. If it stops at a point a little too high turn the regulating screw a little in the minus direction as indicated by the arrow. By turning the screw in either direction in this manner the temperature can be set and held at any desired point for any length of time.

When the instrument is ready for use it must be picked up and held so that the regulating screw continues to project horizontally from the side of the instrument. If the instrument is rotated in the hand in the plus direction as indicated by the arrow engraved on the body of the instrument, the temperature will rise slightly, and if rotated in the minus direction it will fall slightly. If, therefore, while the instrument is being used it is desired to vary the temperature two or three degrees F., it is only necessary to rotate it in the plus or minus direction as indicated by the arrow engraved on its body near the regulating screw. The instrument may be stood on its head or held in any intermediate position without interfering with the regulating apparatus as long as the regulating screw projects horizontally outward from the body of the instrument or as long as the arrow engraved on its body near the regulating screw points horizontally and is rotated neither up nor down. Deviations from this rule, however, produce only slight variations in the temperature, and are in most cases negligible.

With the temperature now at the proper point and the instrument held with the set screw projecting horizontally outward, and the tissues to be treated thoroughly anesthetized, the contact surface (G) of the chosen conductor is placed directly against the tissues to be treated and held continuously in intimate contact with them as long as may be indicated by the pathological condition being treated. After the instrument has been used it is not necessary to disturb the regulating screw. Put it away as it was and when it is desired to use it again it is only necessary to screw the plug into the electric socket, when the temperature will rise and automatically fix itself at or near the point where it was last used, so that very little regulation will be necessary.

115°-125° F. applied continuously for one minute for moderate stimulation of indolent, non-infected ulcers, where destruction or corneal epithelium is not desired.

130°-135° F. applied continuously for one minute for active stimulation of indolent ulcers such as form on old scars where destruction of corneal epithelium with its subsequent rapid replacement is desired, without injury to Bowman's membrane.

138°-142° F. is used effectively in several important conditions with destruction of corneal epithelium over the area treated, but without permanent injury to Bowman's membrane, substantia propria, normal conjunctiva or sclera. The destroyed corneal epithelium always rapidly replaces itself.

152°-160° F. is used in one minute applications in severely destructive ulcerations of the cornea (Hypopyon keratitis, or serpiginous ulcer of the cornea). As soon as the diagnosis is established (it frequently is unnecessary to wait for bacteriological report) the eye is thoroughly anesthetized, and a firm, steady application generally at 158° F. is made for one minute by the watch. This should cause no pain, and subsequent pain can be controlled by the use of cocaine.

Thus we are enabled to pass continuous, accurately measured quantities of heat to the area affected and to limit the effect to a circumscribed area, and to regulate the time of application. The principle of selective thermotherapy has nothing to do with warm or hot applications. These are regulated by the patient's toleration when not under an anesthetic. Nor is it in any wise related to cauterization. This is the employment of temperatures far above the death points of all tissues. A dull red heat for instance is about 700° F. (371.1° C.) and a variation of 100° F. (37.7° C.) is of no especial importance, while in employing the principle of selective thermotherapy we do not permit a variation of more than two or three degrees Fahrenheit.<sup>1</sup>

It has not been our practice to exclude other methods of treatment in these conditions and we select our cases for thermotherapy basing the selection on the following points:

(a) Duration—The longer standing the condition, generally speaking, the more the indication for the use of this instrument.

(b) Reactions—Circumcorneal and conjunctival injection usually are in direct proportion to the degree of virulence of the process and an acutely inflamed eye is an indication rather than a contraindication for the thermophore.

(c) Pain—Frequently the most painful ulcers will be quieted materially after its use as in case No. 2.

These conditions are indications, of course, for treatment of some kind at once, but many ulcers will respond to the usual routine medical methods without the addition of chemical or thermal applications, and it is the presence of the above factors in a condition of long standing or unusual severity that draws us to the use of this instrument.

1. Thermal death points (Shahan—Contributions to Ophthalmic Science, 1926).



(d) Finally, the corneal ulcer which has been present for some time, having been treated by other methods with failure to respond, may be of the indolent type and it is here as well as in the virulent type that the thermophore is of importance, in that it can be used almost as effectively in the lower temperatures as a stimulant as it can as an antiseptic or bactericidal agent in the latter.

With these points in mind then, and with the understanding that we do not advocate the neglect of bacteriological reports, blood examinations and any medical means to further the result, but rather do we recommend the use of the thermophore as one more adjunct to the treatment, to be used when other more simple methods fail—I wish to present the following cases to illustrate this report.

The following cases are presented to illustrate the results of the use of this instrument. I wish to thank Dr. G. F. Harkness, with whom I am associated, for his help and suggestions.

#### Case Reports

**Case No. 1.** Mrs. G. F. V., age fifty-six years, housewife.

History—About twelve days ago was out riding in auto and something entered left eye. A foreign body was removed and patient was under the care of two oculists for twelve days before we saw her, when she brought a diagnosis of iritis, the accuracy of which report we doubt, as patients very often misunderstand such terms.

Examination—Large, well nourished woman of apparent age. Right eye, negative; left eye, pupil widely dilated (possibly atropine), considerable congestion, vision—counts fingers at ten feet. Fluorescein brings out corneal ulcer about 2 m.m. in size on center of cornea. Ophthalmoscopic examination, negative; clear view. No sign of iritis. Nose, negative; sinuses, negative; mouth, dentures; tonsils, negative; laboratory report, negative.

Diagnosis—Traumatic—corneal ulcer, left eye.

June 12, 1925—Thermophore at 138° F. was applied for one minute using the usual cocaine and adrenalin anesthetic.

June 14, 1925—Reports eye feels much better. Small staining area on center of cornea.

June 18, 1925—Today more staining than past two days and seems to be a slight extension upward. Thermophore 140° F. one minute to ulcerated area.

June 20, 1925—Improved.

June 27, 1925—Practically no stain, eye whitening.

June 30, 1925—Improving.

July 3, 1925—Today got corneal abrasion near site of ulcer, but neither area stains. Eye white. Discontinue atropine.

August 1, 1925—Using yellow oxide for scar on cornea.

August 21, 1925—O. K. except for slight scar.

September 1, 1925—R. V. 20/25, L. V. 20/40—O. D. + 0.50 = 20/20—O. S. + 0.50 = + 0.50 x 180 = 20/25—. Eye clear and white but slight corneal scar. Discharged.

**Case No. 2.** E. N., age sixty years, painter.

History—Two weeks ago while painting a barn, looked up and some one dropped paint into left eye. Pain was quite severe, consulted local physician who washed out eye and applied some ointment, evidently atropine. This treatment was continued ten days, the eye getting more painful all the time and vision failing until finally pain was so severe he could not rest. It was then we saw him first.

Examination—Right eye—negative. Vision 20/25. Left eye, acutely congested, pupil dilated (probably atropine), and patient seems to be in severe pain. Vision limited to light perception. Large corneal ulcer which extends over about two-thirds of the area, starting from the center. Stains readily with fluorescein. Nose and throat, negative.

With cocaine solution, 4 per cent, instilled two or three times and one instillation of adrenalin solution, 1-3000, the thermophore at 142° F. was applied for one minute over the entire ulcerated area and the patient went to the hospital. The following morning he reported that he had been free from pain and spent a good night. The cornea presented a clearer condition.

This man was kept in the hospital for a week under the usual medical treatment of atropine and bichloride ointments and hot applications. The eye gradually cleared until the cornea failed to stain. He was allowed to go home and was treated at intervals in the office, and finally in about three weeks was refracted when vision in left eye was 20/25. Congestion was entirely gone and only a slight scar remained. The laboratory report showed no organisms from curettings from edge of ulcer. Relief of pain was very striking in this case.

**Case No. 3.** I. S., age seven years.

History—Referred on July 30, 1925, on account of a congested right eye. Had pyelitis after measles two years ago, with an occasional attack since. Present condition of one week's standing. Family physician reports kidneys O. K. now.

Examination—Right eye, two small areas very near outer limbs, which simulate phlyctenular keratitis. Photophobia and congestion. Fluorescein positive. Atropine and yellow oxide ointments inserted.

Diagnosis—Corneal ulcers, right eye. Cause not definitely determined.

July 31, 1925—Improved but areas still stain. Tonsils, infected; sinuses, transilluminate clearly; adenoids present (digital examination); nose, negative; advised tonsil and adenoid operation, thermophore to ulcers.

August 1, 1925—Operation, ether anesthetic. Sluder tonsillectomy, adenoidectomy. Thermo-

phore 138° F. for forty-five seconds to lower ulcer, thirty seconds to upper.

August 5, 1925—Convalescence rapid and uninterrupted. Eye white today.

August 10, 1925—Recovery. Vision normal in each eye using illiterate chart. Throat O. K. Discharged.

**Case No. 4.** C. A. M., age forty-seven years.

History—Two days ago noticed pain in left eye.

Examination—February 23, 1922—Left eye, corneal ulcer center, small, but symptoms quite severe. Fluorescein stains. Nose and throat, negative. Recent dental examination, negative. General condition, good.

Diagnosis—Corneal ulcer, left eye.

Thermophore 145° F. for one minute to ulcer, using the usual local anesthetic.

Ulcer healed without complications and with very slight scar. Case rather incomplete as this man failed to report back for vision tests and final observation.

**Case No. 5.** H. L., age fifty years.

History—June 27, 1926—Came into the office with an acute conjunctivitis right eye which appeared to be a beginning lid abscess. Pain.

Examination—Smears—negative except for few pus cells. Usual treatment was given and patient asked to report next day.

June 30, 1926—This patient failed to return until today, and the cornea shows two small spots above and out from center, and one spot below. Atropine and yellow oxide treatment started.

July 2, 1926—These corneal areas stain today and thermophore at 138° F. was applied to each of the three ulcers and patient sent to hospital.

The condition dragged on for a month, gradually improving, the corneal spots having healed over and negative to fluorescein. General examination, laboratory work and blood tests all negative.

August 4, 1926—Discharged from hospital, eye whitened out.

September 22, 1926—Refraction, O. D. no cornea = 20/20. O. S. + 0.25 = + 0.50 x 180 = 20/20. Discharged.

**Case No. 6.** R. A. L., age thirty-four years, laborer.

History—Three weeks ago while at work, got some cement in each eye. Right eye was giving no trouble by the following morning, but left eye continued red and irritated with some pain. The accident was not reported and he has had no medical attention until now.

Examination—Right eye, negative; vision, 20/20. Left eye, large central corneal ulcer, reacts to fluorescein. Other scars of cornea. Hypopyon present below. Anterior chamber deep, pupil contracted and vision limited to motion and light perception. Nose, septum badly deflected to right; sinuses clear. Teeth, seem O. K., high arch; tonsils, slightly infected; nasopharynx negative.

Diagnosis—Corneal ulcer, keratitis, and hypopyon, left eye.

Thermophore at 158° for one minute was applied, atropine and bichloride ointments were used and patient sent to the hospital.

The thermophore was used on March 28, April 5, and April 10, 1927, the hypopyon disappearing but a central leucoma forming instead and which perforated the cornea following the last use of the thermophore.

April 20, 1927—No ill effects from the perforation of anterior chamber and leucoma is about one-third its former size; but there is a grayish infiltration into the corneal tissue. Thermophore at 158° again used for one minute.

During this man's stay in the hospital he had three injections of anti-diphtheria serum, 2,000, 3,000, and 4,000 units, and since has had increasing doses of Lactigen as a foreign protein. The eye is clearing a little, but not very satisfactorily. He is still under observation and is reported in this paper to recall the danger of lime and cement burns, and as a case that has gone on through the successive processes in spite of the thermophore or any other method of treatment. Suffice to say that the ulcer in its superficial manifestations responded to the thermophore.

## CONCLUSIONS

The thermophore is a valuable adjunct in the treatment of corneal ulcers. It enables one to apply accurately measured heat to a definitely circumscribed area, and thus protect the surrounding healthy tissue; something which we are unable to do with the drugs or chemicals. It can be used as a killing agent and as a stimulating process.

It is not a difficult procedure, may be done as a routine office procedure, with a very little after discomfort, and ambulatory patients seem to do as well as those hospitalized. Atropine, hot applications, general treatment and any other aid to elimination of foci or general upbuilding are to be continued as before.

Many cases recover without the thermophore but in the majority recovery is hastened by its use.

---

## CONSIDERATION TO BE GIVEN TO ACCOMMODATIONS FOR AN- NUAL SESSIONS

---

At the recent Washington session of the A. M. A., a resolution was adopted to the effect that careful consideration should be given to invitations of cities for the annual session, that adequate accommodations can be furnished for the care of from 8,000 to 10,000 persons, including a hall sufficient for registration and exhibits and a theatre to accommodate the general session. The latter seems the most difficult.



## THE PRESENT STATUS OF THE TREATMENT OF SYPHILIS OF THE CENTRAL NERVOUS SYSTEM\*

JOHN I. MARKER, M.S., M.D., F.A.C.P.,  
Davenport

The successful treatment of neurosyphilis is preventive, for a diagnosis of syphilis of the brain or spinal cord implies a serious condition. The problem of reducing the incidence and mortality of syphilitic diseases of the nervous system becomes a problem primarily, of early diagnosis of acquired syphilis, and its adequate treatment. As most early syphilis is seen by the general practitioner the problem becomes one for him to solve by being on the alert for its recognition and untiring in his efforts to treat his cases adequately.

Figures differ as to the percentage of syphilitics which develop cerebrospinal lesions but one observer<sup>1</sup> reports 25 per cent of his cases over a ten year period had cerebrospinal lesions, and one-half of all patients during the secondary period showed involvement of the optic or auditory nerves which may be transitory or permanent. State hospital records show that 16 per cent of all admissions are due to syphilitic involvement of the central nervous system. Because of the frequency of involvement and the seriousness of the resulting lesions no case of generalized syphilis is adequately treated and observed until repeated Wassermann tests of the serum have been negative and the physical examinations normal over a five year period. In addition the neurological examination and laboratory work on the cerebrospinal fluid should be thorough and negative before release of the patient as cured. To accomplish this, it is usually necessary to give at least two courses of treatment of ten to twelve weeks' duration, in any case in which the sore has persisted for three weeks. If the sore has been present longer, generalized infection may have taken place even though secondaries are not present and repeated serum Wassermann examinations taken after each injection of arsphenamine will show this in a positive test. Then more treatment will usually be required. It seems poor practice to withhold treatment for positive Wassermann and skin lesions to develop in the interest of making a positive diagnosis where the sore is questionable. I have seen this happen a couple times in which the patient developed meningeal involvement at

the same time and required intensive treatment directed at the nervous system for several years after a cure should have been completed. Formerly we were taught that involvement of the central nervous system was late in the course of the infection and that evidences of involvement were not present till ten or twenty years later. Today, we know that 70 or 80 per cent of the cases with early syphilitic lesions show spinal fluid changes and that the cord and brain are probably involved early if at all. The reason for insisting on a spinal puncture and fluid examination on all cases before dismissing them from treatment is apparent.

The active neurosyphilitic pathologically is of two types: Either the lesion is of the meningo-vascular type or it involves the parenchyma of the brain and cord. Diagnosed early when the neurological signs and symptoms are slight, and are elicited only by careful painstaking inquiry, either type does well with intensive general anti-syphilitic treatment. Here is where the general practitioner can do his patients as much good as a specialist, and more good than can the neurologist or syphilologist do them later in the course of their disease when the diagnosis becomes easy and the treatment difficult. The advisable treatment in the meningo-vascular lesions is the intensive general antisypilitics. Later if treatment is not satisfactory, some form of intraspinal therapy should be instituted as advised later for parenchymatous lesions.

Tabes may respond to intensive general treatment. If it does not, the practice of different authorities differs in attempting to get an intensified action of the remedy on the lesion in the brain and cord. Dercum<sup>2</sup> drains the spinal fluid from the cord in preference to other methods such as injecting substances into the thecal sac. He points out that the function of the cerebrospinal fluid is preeminently mechanical, and that the fluid exists practically alone for the purpose of suspending the brain and cord in a fluid medium and protecting it against trauma. A brain of forty-five to fifty ounces exerts a pressure of but one ounce on its base, due entirely to this supporting action of the spinal fluid. In its chemical constitution, the spinal fluid corresponds more nearly to pure water than does any other body fluid. It is directly continuous through the aqueduct of the cochlea with the fluid of the labyrinth which is generally conceded to exist for mechanical purposes only. Dercum states that intraspinal medication was undertaken on the erroneous theory that the nutrition of the nervous system is carried on

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

through the spinal fluid, and that the injection of medicated serum distributes the arsenic into this nutrient fluid. In practice he removes all the spinal fluid which will drain out and explains his results as being due to the hyperemia produced in the brain and cord analogous to the Bier method of hyperemia used in surgery.

The Swift Ellis treatment is carried out by introducing into the arachnoid space blood serum taken from the patient after an injection of arsphenamine. One hour after an intravenous injection of arsphenamine, of from 0.3 — 0.5 gms., forty cubic centimeters of blood is drawn into a centrifuge tube under sterile conditions. After the clot is formed it is centrifuged until the clear serum can be pipetted off. This serum is then kept on ice in a sterile container until the next day, when it is heated for thirty minutes in the water bath at a temperature of fifty-six degrees centigrade. Of this inactivated serum twelve cubic centimeters is diluted with eighteen cubic centimeters of sterile normal salt solutions and introduced into the theca of the cord. Usually spinal fluid equal to the amount of serum to be introduced is first withdrawn. Fordyce introduces the serum into the canal under pressure without previous drainage of the spinal fluid. The intraspinal treatments are given in a course of six or eight at weekly intervals with a rest between courses. This treatment has given good results, and the effect is explained by the distribution of arsenic throughout the cord where it more effectually comes in contact with the lesions, by the hyperemia set up from the introduction of the foreign serum about the cord and by some it is thought that anti-bodies created in the blood stream under stimulus of the arsphenamine during the hour waited are responsible for the result.

Neurosyphilis starts usually in the meninges as a meningitis and 90 per cent of syphilitic meningitis cases can be cured by intensive general treatment, augmented with spinal drainage, or drainage and introduction of arsphenamized serum.

In the search for an arsenic preparation which was more penetrant to the cerebrospinal fluid than arsphenamine, tryparsamide was introduced into the treatment of neurosyphilitics. This remedy has a slightly lower percentage of arsenic than has arsphenamine, but the tolerance of the body to tryparsamide is such that doses five times as great as those of arsphenamine may be given. Tryparsamide has found its greatest usefulness in early cases of paresis, and while it is not so effectual in changing serum

Wassermann reaction, the increased feeling of well being of the patient both physically and mentally recommends its use. Some observers<sup>3</sup> have given as high as 68 per cent of early paresis cases returned to the work and usual mode of living over a period of three years observation. Tryparsamide is given intravenously in doses of three gm. in ten to twenty cubic centimeters of distilled water. A course of these consists in from eight to sixteen injections given at weekly intervals. Bismuth or mercury in the insoluble salt has usually been used between the arsenic injection or in a course following it. A few cases while under treatment, have developed an amblyopia, which in most cases clears up in a few days. It has been a permanent condition in a few cases and constitutes an objection to the use of the drug unless care is taken to prevent its occurrence. By having the eyegrounds carefully examined and a map of the visual fields made before treatment is instituted, their condition can then be compared at weekly or two-weekly intervals. This will usually suffice to prevent a permanent amblyopia developing.

Observation has long been made that patients with paresis, following an attack of febrile disease, were greatly benefited in their psychosis. Even earlier than the times when they knew that it was the paretics that were benefited by the fever, it was observed that an attack of fever was beneficial to some insanities. In 1917 Wagner Von Jauregg introduced the method of malarial inoculation, for the purpose of producing fever in these patients. It has now been used and reported on by numerous men both in this country and abroad. The reports on its use are usually favorable and the treatments have received considerable popularity in some of the larger hospitals and clinics. O'Leary<sup>5</sup> found 25 per cent of twenty-four cases returned to their former occupations within two months after the malarial infection was stopped. Thirty-seven per cent were definitely improved and two cases died. One of the deaths was due to the malarial infection. The improvement in the cases were in the mental condition, deterioration being less marked and there was an improvement in tabetic pains from which they formerly suffered. Re-examined<sup>4</sup> a year later there were about 35 per cent back to their usual work and 35 per cent were definitely improved.

Steele<sup>6</sup> using malarial treatment in England, found definite improvement in the physical condition of the patients treated and gives his recovery rate at 20 per cent of one hundred and twenty cases. Plaut<sup>7</sup> inoculated his patients



with the infection of relapsing fever and found his cures equal to those of malaria. He advocates the use of relapsing fever, but it has not been found successful in the United States, for no strain of the infection virulent enough to give the fever has been found. Solomon<sup>8</sup> has tried out and reported on the use of the spirochaete *morsis muris* which causes rat bite fever. The advantage of this infection being that it can be kept in laboratory animals and transmitted and is easier handled than malaria. The objection that malaria might become prevalent by the strain of mosquito acquiring it to which it is infective has been disputed by others, saying that the stage which produces the fever in the cases which are inoculated by injecting infective blood from a patient having the disease is asexual and not capable of transmission through the body of the mosquito.

It is probable that use of any of the fever producing methods will be used only in the clinics or hospitals of the larger medical centers so long as infective material is used. It has been suggested that use of killed bacteria be used by injecting at intervals dead typhoid bacilli intravenously. This if useful, can be used more generally.

The most valuable treatment to most of us will probably always be general antisyphilitics used early before the involvement is so advanced; and tryparsamide in the early and moderately advanced cases. Late in the course of the disease if psychosis is present they always become hospital cases. Here the malaria treatment seems to be the choice of a large number of men today. The point which I would consider to be of the most importance to us, is to be ever alert to discover and treat our syphilitics early and remember that the best treatment of neurosyphilis is preventive.

#### REFERENCES

1. Pike, H. V.—Medical Journal and Record, 123:5: 316-320 (March 3), 1926.
2. Editorial—Journal of Laboratory and Clinical Med., v, viii:5: (February), 1923, p. 350.
3. Schwab, S. I.—The American Journal of Syphilis, ii:1-13 (January), 1927.
4. O'Leary, P. A.—Archives of Dermatology and Syphil., 14: 550-559 (November), 1926.
5. O'Leary, P. A.—Archives of Dermatology and Syphil., 13: 317-318 (March), 1926.
6. Steele, J. P.—The Lancet, 212: 484-486 (March), 1927.
7. Plaut, F.—International Clinics, 36: 1: 63-74 (March), 1926.
8. Solomon, H. C.—Archives of Internal Medicine, 38: 391-404 (September 15), 1926.

#### Discussion

**Dr. William E. Ash, Council Bluffs**—Dr. Marker's paper was very interesting and illuminating, it brought up to all of us the problem of the treatment of neurosyphilis. I wish to emphasize the fact, that no case of generalized syphilis should pass from ob-

servation without first an investigation of the spinal fluid, as it has been definitely shown that spinal fluid changes occur early in the course of the generalized infection. In some instances as early as six to eight weeks an increased cell count or globulin being the early manifestations of the central nervous system involvement. In the past few years I have applied various intradural methods of treatment and cannot offer much enthusiasm over the results obtained in comparison with other methods. I think spinal drainage advocated by Durcum does have some merit. If we are correct in our deductions that paresis is primarily a paravascularitis and that the resistance to treatment is not due to inaccessibility but rather to a modification of the organism from a long residence in an unfavorable soil, there can be little argument in favor of the various intracerebral or intraspinal methods of administering the antiluetic. The present practice seems definitely to incline towards the intravenous route. Tryparsamide seems to be the drug of choice in the moderately advanced cases and should be given at weekly intervals, over a considerable period of time in conjunction with mercury or bismuth. In the past two years I have treated sixteen cases of general paralysis by inoculating the patient with tertian malaria, the infection being checked after twelve to fourteen chills have taken place. My experience has been, the course of general paralysis is definitely modified by malaria and not a few patients are markedly benefited and that it offers the best method of treatment where conditions are practical for its use. Of the sixteen cases treated, several were far advanced and considerable mental degradation had taken place with irreparable loss of brain structure but cessation of the progress of the disease was noticeable. Six cases returned to work with apparently good clinical recovery. In one individual, who had positive blood and spinal fluid findings made an exceptional good recovery and the serology also became negative. No established principle by which improvement in general paralysis can be explained, it is based purely on practical experience and observations but hypothesis for action of malaria has been suggested. Plaut proposes the idea of an immunity reaction, that is, the host affected with malaria produces antibodies or other substances which act against the spirocheta pallida. Another therapy, body temperature is the factor chiefly responsible for a favorable effect exerted by the intercurrent infection. As the essayist has pointed out, be alert to discover and treat our syphilitics early, as after all prevention is the best treatment for cerebrospinal syphilis.

**Dr. Marker**—(In answer to a question of a member as to how the malarial infection was utilized)—Infection with malaria has been carried out in various ways. In England especially it has been done by infecting the patient with the mosquito, that is, having him bitten by a mosquito which they know has been infected with malaria. In this country the blood of a patient with malaria is taken and trans-

mitted directly to the patient that is to contract malaria, sometimes intravenously, sometimes intramuscularly or subcutaneously. It does not make a great deal of difference in the course of the disease which method is employed, although the time of infection if transmitted intravenously is shorter than if they use the mosquito as an intermediate host. The effect seems to be the same on those in whose cases observers have made comparison of results, whether transmitted in one way or transmitted in another. One of the objections to the treatment has been the fact that they must always have on hand a patient that is in the active stage of malaria in order to be able to get the infective material to transmit to another, and this makes it difficult to use the treatment unless one is connected with a clinic where they have access to this material continuously.

**Dr. Walter L. Bierring**, Des Moines—If you have not on hand a patient with malaria, and do not have the mosquito, how do you get the therapeutic agent?

**Dr. Marker**—I presume you have propounded a question I cannot answer, except to say that if there were no malaria you could not get it. It must be obtained from a patient where it has been used.

**Dr. Ash**—The strain which we have was originally obtained in Denver and we still have it running, and any one wishing to obtain a strain of malaria can get it through this source. The Maywood Hospital also has a strain of malaria. Therefore it is very easy to secure the plasmodium malariae with which to treat cases of this sort.

**Question by Member**—Where do you inject it?

**Dr. Ash**—We put it directly into the blood stream.

## OPERATIONS FOR PROLAPSUS UTERI IN PATIENTS PAST THE MENOPAUSE\*

CORAL R. ARMENTROUT, M.D., F.A.C.S.,  
Keokuk

In considering the subject of prolapse into the vaginal tract in cases following the menopause, one rather limits the field so far as discussion goes and it is not with the thought that I have any really new material to offer but rather a plea for the choosing of the right procedure in each case that I dare to bring this much discussed subject before you.

In looking up some of the literature, I ran across an article by Dr. Lynch of the University of California, in which he makes this unique statement. "Complete prolapse appears common in San Francisco, probably because of the stimulating climate which induces exercise, as well as the many hills which increases abdominal strain."

In our location here in the farming territory of the Middle West, we can find a much more logical reason, in the hard work done by women on the farm and also to the fact that they are often up and working long before they should be out of bed at all following their labors, also the repair following labors which has to be done in the farm homes has to be more imperfectly done than if they could be taken care of in hospitals.

The cases of prolapse in women of this age have usually persisted from the first labor, through subsequent labors and finally through the change of life itself and are more apt to be of the last degree than if we were considering younger women.

It is hardly necessary to resort to a number of different classifications as does Dickinson in his paper and review of the Halden Tandler series for the large majority of these have gone until there is a prolapse of the uterus bladder and rectum with the cervix presenting at or through the vaginal outlet with the resultant bladder irritation, in ability to move the bowels when not very loose and in ability of control of feces when they are loose. Then the great length of time that the most of these conditions have persisted means that you have a chronic inflammation of the cervix which has to be carefully considered in choosing the type of operation to be used in each case. Often the only reason these cases seek surgical assistance is because they have lost bladder control and have become very uncomfortable, from the frequent urination and they can hardly be on their feet due to this and the bearing down pain, as many express it and also pain low down in their backs.

I had one case come in recently who had only been able to be on her feet during the last twenty years by wearing an enormous ring pessary in the vagina which would be placed by her husband with her in the knee chest position.

For several years I have been doing all of this work from below if there was no apparent abdominal pathology making a laparotomy absolutely needed.

There are several reasons for this, the first being that many of these women have reached an age when they are better off if they can be spared the shock of abdominal work from above. Also with the great stretching of both fascia and muscle that we find in these, it is necessary to do some form of cystocele operation which does not fit so well with suspension work from above.

If the cervix is pronouncedly inflamed, it is best to do a vaginal hysterectomy because with

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



no other evidence than an apparent irritation from the protrusion, in the last eight cases of vaginal hysterectomy done on women of this age, in four of them we have received a report of the pathologist indicating beginning carcinoma of the cervix.

Where a hysterectomy is not advisable or necessary the cystocele operation as described and done by the late Dr. Thos. J. Watkins with some modification to suit the given case has proved of more benefit than any other procedure.

The dissection must be thoroughly and carefully done with control of the bleeding at all times so a clear field is always present.

It is important that your vaginal retractors be placed so the operating field is as accessible as possible; then with tenaculum forceps on the anterior lip of the cervix, it is brought well down and a cross incision is made in the mucous membrane low down on the cervix and the dissection started with blunt scissors separating the mucous membrane from the fascia over the bladder extending this upward nearly to the urethral opening.

During this it is advisable to have a sound in the urethra as a guide to its location for the urethra is loosened and misplaced in its posterior position and can be easily injured.

The mucous membrane and the fascia are then opened with a linear incision up to within a short distance of the urethral opening and the bladder pushed back with the finger covered with a gauze sponge, then if it is considered best to open the peritoneum so the adnexia can be examined, the opening is made where the peritoneum is reflected from the uterus, the examination made and if the adnexia is not to be removed, the round ligaments may be picked up with forceps after locating the place where they will be equalized as to tension from both ends, they are brought down and the peritoneal opening closed by stitching it to the body of the uterus.

A portion of the broad ligament low down is taken up with forceps and loosened from its uterine attachments and after making a V-shape incision on the anterior part of the cervix, the loosened parts of the broad ligaments are overlapped and with the round ligaments are securely fastened into the V in the cervix.

Now after placing the stitches in the fascia directly underneath the urethra, a circular stitch as advocated by Dr. Watkins, is started, catching all the fascia back of the edges and also the round ligaments and broad ligaments which effectually close the opening through which the

bladder has been descending. The fascia is then overlapped securely after which redundant vaginal mucous membrane has to be cut away so there will be no extra protrusion below the urethra and the vaginal mucous membrane is smoothly closed.

This procedure has given better results than I have been able to obtain from any other form of cystocele operation but after all this, the operation is only about half done as an adequate and effective perineal repair is needed to complete the support and to relieve the loss of control of the rectum.

Here as in the work with the bladder, a clean and free dissection fully exposing the rectum and loosening it from the vaginal wall far enough up so that it is not carried down by tension on the central part of the flap. The fascia must be loosened from the flap so by insertion of a circular stitch high up in the wound the rectum is held well up out of the way.

In building up a heavy perineal body, the levators are picked up high and caught with heavy sutures so the perineal ring may again be constructed and then the fascia brought together on toward the sphincter. The anterior part of the sphincter is nearly always wanting, due perhaps to the original tear in part, and then to the later pulling from the rectocele so that a dissection of the sphincter is needed and stitches taken well out on each side and really reconstructing the anterior one-third of the anal sphincter.

By continuing several layers of stitches, a strong perineal body is constructed and the top of the vaginal flap pulled down and the extra tissue cut away, to do away with the dead space that would be left, the edges are sutured in and the perineal wound closed.

This operation leaves the perineum and vaginal outlet in a very normal condition but it is not possible to do this type of operation without considerable shortening of the depth of the vagina which at the age these patients are, is not so great a handicap as in younger individuals.

If there is great protrusion with consequent irritation of the parts and a red and inflamed cervix, I have found I get better results by doing a vaginal hysterectomy as it gives one a better result and gives a better chance to close the pelvic outlet thoroughly and as mentioned before, a number of these inflamed uteri have a beginning carcinoma and these patients are better off with the uterus entirely removed.

The early part of the hysterectomy as I have been doing it, is exactly similar to the beginning of the cystocele operation, up to the opening of

the peritoneum and turning down of the uterus itself for the examination of the adnexia, then heavy forceps are put on the broad ligaments, and uterus including the entire cervix are removed, the peritoneal opening closed and the round ligaments are lapped underneath the bladder, the broad ligaments are well lapped over and sutured together, the stitches are placed underneath the urethra and the circular stitches are placed, being careful to catch the round and broad ligaments in the stitch at the back so that the bladder hernial opening is closed in exactly the same way as in the cystocele operation before mentioned, the submucous fascia is also overlapped, the redundant vaginal tissue is cut away and properly closed after which the same procedure is used for the rectocele as has already been described.

There is nothing new in this work, but what I want to emphasize is that with cases of this age, it is best to do all this work from below as their vitality is not so good nor the vitality of the parts so good as in younger women and their age demands something that will really relieve the symptoms even though a very small vagina is left, for these women have suffered so long that they demand a cure for the unfortunate condition.

Ethelyne has been a great aid in these operations for with a hypodermic of one-eighth of morphine with one hundred and fiftieth of atropine one hour before the operation and another injection of one-eighth of morphine a half hour later and the operation following this injection in one-half hour, the nervousness preceding operation is entirely done away with and the amount of ethelyne is greatly lessened so very little after effect is noticed and the morphine eases the first few hours following the work which are the worst so far as discomfort is concerned.

I firmly believe that almost all of these cases can be taken care of by doing this work from below and that it can be done better and with a nicer result than any suprapubic operation will give and it is certain that it means a shorter time in bed and much less shock than abdominal work.

#### REFERENCES

- S. G. O., August, 1927.
- S. G. O., November, 1926.
- Surgical Clinics of Chicago, October, 1917.
- Surgical Clinics of North America, April, 1922.
- Surgical Clinics of North America, April, 1925.

#### Discussion

**Dr. S. A. Spilman**, Ottumwa—In case of prolapsus uteri I believe it is very important to avoid abdominal section if possible. The operation de-

scribed gives such splendid results which are achieved so quickly, and the patient is afterwards so well, that I can only say that I think it is the operation that should be done in these cases. There may be cases in which it is necessary or proper to open the abdomen, but in my experience this is the best operation that I have found in these cases and I surely feel pleased with the paper.

**Dr. Wm. C. Newell**, Ottumwa—I was glad to hear Dr. Armentrout emphasize the technic of closing the fascia. We believe that separation of the fascia is really the cause of the results that we sometimes have in procidentia cases. Support of the abdominal contents is effected by means of the fascia. The damage is done not primarily to the muscles, but more so to the fascia, and, of course, prophylaxis of the condition should be considered. When a patient comes in, say, six months after labor, and we then recognize the fascial tear and repair it, I think that these cases are better treated by fascial repair than by the operation for procidentia.

**Dr. N. F. Miller**, Iowa City—I am very glad to concur in what the essayist has said about vaginal hysterectomy. Just recently I have heard considerable argument against vaginal hysterectomy, but it seems to me that in women past the menopause with extensive prolapse there is not much choice, since the morbidity and mortality rate is much less in the vaginal operation than in case of laparotomy. While vaginal hysterectomy is the operation of choice in extensive prolapse in women past the menopause other less radical procedures are often indicated where the pathology is less extensive. We often get better results by leaving the uterus, but we have to face the fact that many of these develop carcinoma, and if we intend to leave the uterus we must be sure there is no malignant condition present. I want to compliment the essayist on his method of treating cases of prolapsus uteri. It seems to me that the treatment recommended has a very definite indication in the type of individual under consideration. The use of the fascia in these cases is extremely important, and should not be overlooked in the treatment of conditions in this general group.

**Dr. George M. Crabb**, Mason City—I have enjoyed this paper very much, and feel that the Doctor is entirely right so far as this class of cases in younger women is concerned. There is, however, a group of cases involving older women, sixty-five and beyond, in which I believe another form of operative procedure will be less hazardous and give equally good results. In reading about various surgical operations I often turn to Kocher's Operative Surgery, and several years ago I was greatly interested in his discussion of operative technic for this class of cases. Since then I have tried it out in many cases and have obtained splendid results. In discussing the subject Dr. Kocher points out that the interposition operation is not physiological or anatomical and that it does not give good results,



but for the older patients he devised an operation that is simple and which can be carried out in patients of low vitality and give them a great deal of relief for the remaining years of their lives. That operation consists of an abdominal section through a very small opening, picking up the uterus, raising it and bringing it outside of the abdominal fascia and attaching it firmly to the deep fascia in the abdominal closure. Of course he presupposes that there is no carcinoma present in the uterus and that conditions are favorable for such an operation. I have done this in almost every instance under local anesthesia with comparatively no shock. The after-results have been good. For a detailed description of this procedure I would refer interested members to Kocher's last volume on Operative Surgery.

**Dr. Emil C. Junger, Soldier**—Dr. Armentrout stated that he was very much surprised when asked to read a last minute paper. And that is what we general practitioners have to meet—we get a lot of surprises along the way. I have a pal who went to see an old lady who has passed the menopause twice at least and who had lived long enough, and the only excuse they had for calling me was that there was a little kidney irritation. On my arrival I saw the old lady on the bed and there was the uterus out between the thighs. I helped gravity a little by pushing the uterus back in place, putting in a pack, and the woman has been happy ever since. In regard to operation for procidentia, working from below or above is a matter of choice. The Rochester clinic states that the uterus belongs in the pelvis. Do not go in through an abdominal section and raise it up, and do not pull it down, but leave it alone. In the Section on Ophthalmology, Otology and Rhino-Laryngology, they talk of being conservative and helping nature along. That is good advice. Some one said something about the woman getting up too early after labor, climbing hills, etc., and that this causes procidentia. In my country we have many women who get up the first day after labor and do their work, and the case I have referred to is the first case of procidentia I have seen in my twenty-five years of practice. You can't beat my hills, and these old women all work. There is something at the bottom of this thing, we have a weakened constitution some place. In the case of these women who are giving us so much trouble, and men too, we have to look somewhere else for the cause of all this trouble and weakness. We are dealing with end results all the time—there is something wrong in our living that undermines our constitution. It is said that "There is a destiny that shapes our ends, abuse them as we may."

**Dr. Kenneth L. Johnston, Oskaloosa**—The essayist spoke of the danger of carcinoma of the cervix developing as the result of irritation due to prolapse. In looking up the literature on cervical carcinoma I was surprised to find that most men agree that prolapse is not particularly concerned in pro-

ducing carcinoma of the cervix, if cervical tissue is not rent at labor and infection is not present. Simple prolapse itself is not a cause of carcinoma. Relaxation of the fascia, to which these gentlemen have referred, is the cause of procidentia. The condition produced is essentially hernia. Dr. Newell was quite right in pointing that out. You have the same conditions as in other hernias—the whole of them are plain old hernias due to separation of fascia. These women go through life with bad perineal tears, the vaginal line gets out of position, and down comes cervix, uterus and all. If the cervix is repaired early these cases will be averted. My impression is that cystocele is secondary to perineal relaxation.

**Dr. Armentrout (closing)**—I think it is a good thing to have a last minute paper because so many important points are overlooked by the author, and this as a rule brings out an interesting discussion. The question is not one of early tears or anything of that sort, and the paper is not meant to deal with them in any way. If following labor these tears could all be properly repaired and union took place in every case, there never would be any room for a paper of this kind. My presentation is simply a brief description of an operation that has seemed to me to be of great value. I do not say that in the hands of some men better results cannot be obtained with something else. You may secure the same results by doing a different sort of procedure, but still the longer I practice surgery the more I feel that if we can do away with the shock of laparotomy in these older patients, we have thereby done them quite a favor, because one does not always know just what degree of resistance the patient may have. Moreover, there is the element of strength which, with all our laboratory facilities, we are not able to measure, and if we keep the element of shock down to the lowest point possible we certainly will help out the mortality statistics very materially and also will be doing these patients a favor.

---

#### DR. ALEXIS CARREL

---

Dr. Alexis Carrel was born in Lyons, France, June 28, 1873. He received the degree of B.S. in 1891 and was graduated Doctor of Medicine in 1900. In 1904 he came to the United States and entered upon important studies in medicine which led to his appointment as associate member of the Rockefeller Institute for medical research, and in 1912 a member.

When the war broke out, as a member of the French Army Medical Corps, Dr. Carrel was placed in charge of the military hospital at Compiègne, where in connection with the chemist H. D. Dakin, working with the medical corps of the British Army, he developed the method known as the Carrel-Dakin.

## GOITER WITH COMPLICATIONS\*

GEORGE KESSEL, M.D.

AND

WILLIAM A. BOCKOVEN, M.D.

Cresco

This paper refers to a special case, the history of which is as follows:

Mrs. E. W., age forty-seven, married, three children. Nothing in past history of interest except partial deafness since she was twenty-five years old, gradually worse until during the past five years she has been so deaf that conversation is difficult. She began getting gray at thirty. Has always been extremely nervous. She dates her present trouble to an accident which occurred about three years ago. Although not seriously injured she noticed a tremor of the hands, excessive sweating, increased weakness within a few weeks, and a loss in weight. She consulted a physician in her home city about six months before coming under our care, and at that time was put on Lugol's Solution, 15 m/ t.i.d., continuing this treatment during the six months. This long continued iodine treatment was due to the fact that her physician was out of the city and she was instructed by an assistant to continue "the same medicine". For a time she seemed to improve, but finally began to lose weight again, vomited most of food eaten, became extremely nervous, and had to remain in bed a greater part of the time. She first came under our care in October, 1925. She had had no medication for over a month, so she was put to bed and given Lugol's Solution, 10 m/ t.i.d. for a week. The iodine now seemed to aggravate rather than improve her symptoms, and therefore it was stopped under the supposition she was already over-iodized. The average of the basal metabolic rate at the end of the week was plus 48.

## PHYSICAL EXAMINATION

Physical examination showed a thin, emaciated woman who looked twenty years older than her stated age—some prominence of the eyes and a widened palpebral angle. The skin was moist and clammy. There were reddish blotches over the exposed parts of the neck—a moderately enlarged, symmetrical thyroid with a definite bruit over both lobes of the gland. Pulse rate 140, with some irregularity of force and frequency. Heart sounds were distant, but clear, and there was a

variable systolic murmur in the mitral area—not transmitted and not always present. Hearing was defective, especially for low pitches. The drum membranes were grayish and pale. Examination was otherwise negative except a marked dermatographia. Laboratory findings were negative. Hb. 75 per cent, R.B.C. 4,060,000, W.B.C. 7,800. Normal differential count. Urine negative. Blood Wassermann negative.

## PROCEDURE

Both superior thyroid arteries were ligated under local anesthesia. The patient had a severe reaction, pulse went up to 200, was very irregular and weak—restlessness increased, and no food or water could be retained. Rectal feeding and water by the bowel were necessary for five days. She was discharged as improved on the eighth day. We saw her occasionally for the next three months. She gained ten pounds in weight but remained weak and nervous, and at no time seemed fit for further operative procedure. She entered the hospital again January 13, 1926. Basal metabolic rate plus 40, physical findings identical with her former examination except that the right lobe had increased in size and the left lobe was only barely palpable. She was given Lugol's Solution in the evening and the next morning, and operation was performed under local anesthesia. Right lobe was nodular and firm and considerably larger than left lobe. The right lobe was resected leaving a small portion only with the posterior capsule—on account of condition of patient, left lobe was not disturbed. Wound was lightly packed with iodoform gauze. On account of previous difficulty in retaining food, water by the bowel and rectal feeding were started at once, and continued for two days. The heart murmur became more pronounced and the pulse became very irregular. Ice bag was applied to the precordial region. Highest temperature after operation was 100%, and that for one day only; the average temperature throughout being practically normal. 1 c.c. of Digalen (Roche) was given hypodermically t.i.d. for the first three days post-operative. Morphine  $\frac{1}{2}$  and atropine 1/120 given hypodermically the first night for pain and restlessness, which failed to give relief. The next day potassium bromide was added to the rectal feedings. The second day following operation the general condition of the patient seemed much improved and it looked as though she had passed the crisis. At 11 p. m. of the third day post-operative a sharp stabbing pain in the right forearm came on suddenly. The forearm was band-

\*Presented before the Mid-summer Meeting of the Austin Flint-Cedar Valley Medical Society, Cedar Falls, Iowa, July 12-13, 1927.



aged with absorbent cotton and heat applied locally, which gave some relief. During the night the hand became white and cold. There was no pulse at the wrist. By the next day the hand was bluish and withered in appearance. Heat and codeine relieved the pain fairly well. By the fifth day post-operative the hand was turning black to the wrist joint on the flexor surface and half way up the dorsum of the hand on the extensor surface. This line was maintained until complete demarcation gradually took place. Mottled purplish spots appeared on the forearm and one large blister just below the elbow. There was no swelling of the forearm and no swelling or tenderness of the arm. The pain gradually subsided into a dull ache. The patient's general condition improved rapidly. The wound in the neck healed without complication and the patient was discharged from the hospital the tenth day post-operative. The hand now was completely mummified to the line of demarcation. A large black area the size of a dollar was present just below the elbow and there were several smaller black spots along the forearm. The pulse was down to 100, and the nervousness greatly improved. Appetite had returned, and there was no nausea or vomiting. At no time was there any hemoglobinuria. The hand continued to wither and on February 15, just a month after the thyroidectomy, the hand was amputated at the wrist under local anesthesia. The patient left the hospital the next day, and made an entirely uneventful recovery. Her health has continued to improve. She wears an artificial hand which is used to good advantage. She is the picture of health, but still has some cardiac arrhythmia and a mild mitral systolic murmur.

#### ETIOLOGY

Our first considerations in arriving at a diagnosis of this complication were Raynaud's Disease or an embolism. We were undoubtedly dealing with a dry gangrene, which Da Costa<sup>1</sup> tells us arises from a deficiency of arterial blood.

In gangrene due to embolism or thrombosis, when an embolus lodges in an artery and causes dry gangrene, the case runs the following course: Sudden severe pain at the seat of impaction, and also tenderness; after obstruction has become complete there is pulsation above but not below this point; the limb below the obstruction is blanched, cold and anesthetic; within forty-eight hours, as a rule, the area of gangrene is widespread and clearly evident; the limb becomes red, blue, and then black; the skin becomes shriveled and its outer layer stony or horn-like because of evaporation.<sup>1</sup>

Raynaud's Disease is a vasomotor or trophic neurosis in which cyanosis, local asphyxia and gangrene of the extremities, usually symmetrical, appear and are associated with neuralgic pains, dysesthesias, diminished sensibility, and a subjective sensation of cold, and hemoglobinuria is sometimes present. Under the same heading are also included those cases in which obliteration of the peripheral blood-vessels occurs as a result of intoxication or of anatomical vascular changes, such as arteriosclerosis or thrombosis. Raynaud's Disease is found more frequently in women between eighteen and forty, in neuropathic, emotionally unstable, hysterical and alcoholic individuals. Onset is influenced by exposure to cold, menstrual anomalies, and emotional disturbances.<sup>2</sup>

Raynaud in his original paper states that it is independent of all demonstrable anatomical changes of the vascular system and invariably affects symmetrical parts. It is due to vasomotor spasm—an excessive duration of this angiospasm being followed by gangrene.

According to Buerger the symptomatology in peripheral gangrene is as follows: The extremities pass from a pale to a bluish or dusky red color, and the purplish discoloration of finger tips is visible through finger nails.<sup>3</sup>

Other conditions which must be considered are thrombo-angiitis obliterans and endarteritis obliterans. The organic or obliterative lesions involving the extremities are extensively discussed by Dr. George E. Brown of Rochester, Minnesota, in a paper published in the A. M. A. Journal of August 7, 1926. He divides the lesions into two types, thrombo-angiitis obliterans, or Buerger's Disease, and endarteritis obliterans, or arteriosclerosis with or without superimposed thrombosis, and gives the differential pathology.<sup>4</sup> This interesting paper was of great value to us while studying our puzzling case. Da Costa states that thrombo-angiitis obliterans is very rare in women, slow in onset, and usually starts in legs. Endarteritis obliterans does not run such a course.<sup>1</sup> Drug poisoning must be considered, but this patient had no ergot—only a digitalis preparation for three days post-operative and Lugol's Solution a short time while under our care. The literature fails to reveal such a type of poisoning from either of these drugs. Syphilitic arteritis was considered, but a negative Wassermann, and no history of venereal disease, should exclude syphilis.

#### CONCLUSION

In conclusion, it seemed to us we were dealing with a mixed affair. The fact that the gangrene

occurred only on one hand would point toward thrombosis as the correct explanation. The course of the disease from its onset points rather to Raynaud's Disease. Although an extensive abstract furnished by the College of Surgeons showed Raynaud's Disease as a complication in many other diseases, it contained no record of a case where this complication occurred with goiter.

## BIBLIOGRAPHY

1. Da Costa: "Modern Surgery", pp. 92-93.
2. Goodhart, S. P., in Tice: "Practice of Medicine", vol. viii, pp. 649-52.
3. Buerger, Leo: "The Circulatory Disturbances of the Extremities, including Gangrene, Vasomotor and Trophic Disorders", (W. B. Saunders Company, 1924).
4. Brown, George E.: "The Treatment of Peripheral Vascular Disturbances of the Extremities", A. M. A. Journal, August 7, 1926.

## LIVER THERAPY IN PERNICIOUS ANEMIA\*

WALTER L. BIERRING, M.D., Des Moines

Within recent years two conceptions of the nature of pernicious anemia have come into greater prominence. Professor Knut Faber of Copenhagen in a series of lectures delivered in this country a year ago strongly advocates the conception of an intestinal intoxication as the essential factor in the pathogenesis. This is based largely on the close relation of achylia gastrica to pernicious anemia, affording a plausible explanation for the development of abnormal bacterial flora in the duodenum and jejunum, forming toxins with hemolytic and neurotoxic action, which when taken up by the blood stream produce the pathologic changes characteristic of pernicious anemia.

The experimental researches of Whipple and his associates, with the clinical contributions of Minot and Murphy, Koessler and others, uphold the view that pernicious anemia belongs to the deficiency diseases. With this conception the constructive element concerned in red cell formation and hemoglobin concentration is lacking. The similarity of pernicious anemia to other food deficiency disorders such as sprue, pellagra, and Beri-beri, appears to support this view.

According to Whipple, Minot and Murphy, and their collaborators this lacking element can be supplied by a diet rich in liver, pancreas and kidneys, while Koessler and others regard the fat soluble vitamins A and water soluble B of primary importance in blood regeneration.

As this discussion is mainly concerned with the treatment of pernicious anemia by a diet

rich in liver, a brief review of the experimental work of Whipple is necessary.

An experimental secondary anemia was produced in dogs by repeated bleedings until a stationary anemia was maintained corresponding to 40 to 50 per cent of the normal blood state in the dog. This served as a basis for observing the effect of a series of feeding experiments with different foods, as well as the use of several medicinal substances.

The results were interesting and often quite contrary to the experience obtained in the treatment of anemia in the human organism.

Of the food stuffs, such as bread mixtures with the addition of salmon and cod liver oil, had no stimulating effect at all, while a diet rich in proteins, containing meat products, beef and calves liver, kidney and spleen, produced a marked rise in the red cell and hemoglobin curve. Of the latter liver proved to be the most potent factor. Heart and striated skeletal muscle exerted a similar effect, but not with the same uniform results as in the use of liver. Spinach proved the most favorable of the green vegetables, while beets, Brussels sprouts, celery and parsley were practically inert.

Iron was the only medicinal agent that proved of any value. Germanium dioxide and the arsenical preparations having no appreciable effect.

Minot and Murphy deserve the credit of applying the principle of the specific properties of a liver diet, advanced by Whipple and his associates, in the treatment of pernicious anemia. They have thus far published their experience with this plan of therapy in 105 cases with very encouraging results. The remission of improvement that is obtained appears to be more stable and uniform than has been accomplished with former methods of treatment.

According to Minot and Murphy the diet for the 24 hours should approximately contain 340 grams of carbohydrates, 135 grams of protein, and 70 grams of fat. This includes from 150 to 200 grams of liver and a liberal supply of fruits and vegetables. The low fat content is regarded as an essential feature of the diet.

Our experience is limited to the observation of ten cases in which the liver diet has been the principal part of the treatment. In one patient the results have been so striking that it seems fitting to use the same for illustration. The accompanying chart gives a graphic outline of the red cell curve during a period of thirty-two months.

\*Presented at meeting of Medical Society of the Missouri Valley, Des Moines, September 14, 15, 16, 1927.



The patient is a farmer forty-two years of age, married, one daughter. He had one sister die of pernicious anemia. When he first came under observation on February 3, 1925, he presented the typical clinical picture of pernicious anemia. As he gave a history of subjective symptoms for the preceding four months, the duration of the clinical signs of pernicious anemia covers a period of three years. Before his present illness he claims to have been in good health.

The blood examinations have averaged one each week during the thirty-two months, and the patient has co-operated faithfully in the different plans of treatment that have been carried out during this time. A part of each year he has been under hospital observation, so that this case constitutes as complete a clinical experiment as could be desired.

In February, 1925, two blood (citrate) transfusions were given, which were followed by a distinct remission, that was maintained for about three months, when the blood curve began to lapse and continued so during the following six months. During this time several courses of cacodylate of sodium were given without any appreciable results. In January, 1926, two further blood transfusions were given, but the blood curve continued downward, reaching its lowest point early in February when the hemoglobin ranged around 20 per cent, red cells 600,000, and leucocytes 1200. Soon after this a diet of high protein content was instituted that rapidly brought about a remarkable remission of improvement in the blood picture and other clinical symptoms. This was unfortunately interrupted by the development of an acute suppurative appendicitis, requiring surgical treatment. After three and a half months the blood curve again began to go downwards, and continued to lapse for the following six months.

During the latter period the treatment included a course of gentian violet in 1/1000 solution given in doses of 15 cc. with each meal. This dose was gradually increased up to 50 cc., if gastro-intestinal distress did not appear. With this stovarsol was given in doses of 0.25 gram three times daily for five days, followed by an intermission of one week for three to five courses. In giving this drug signs of digestive disturbance developed making it necessary to discontinue the treatment.

In December, 1926, the condition became very distressing, because of a general subcutaneous edema, signs of visceral congestion, enlargement

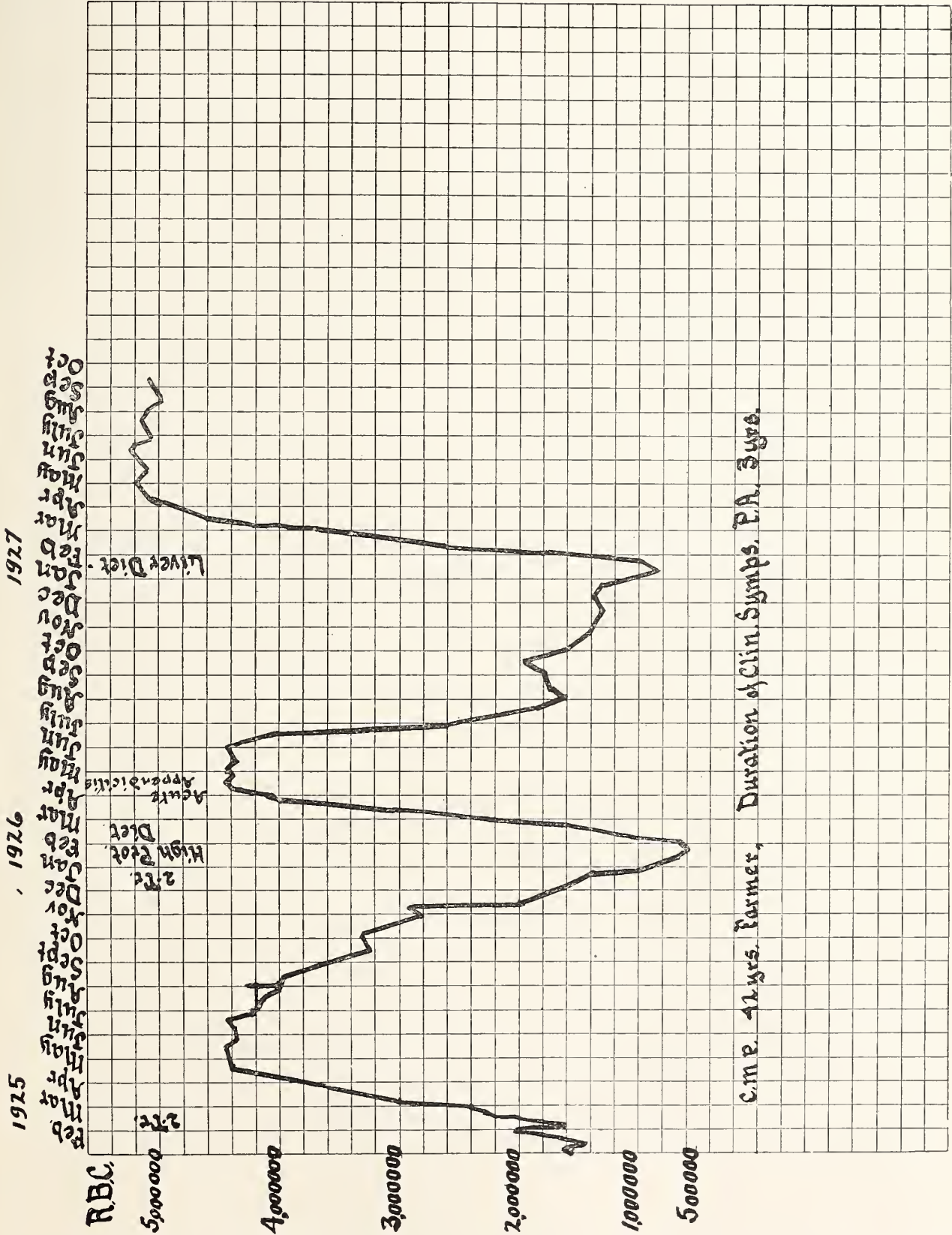
of the spleen, and marked digestive distress. During January, 1927, a diet was begun containing daily portions of cooked or fried liver, but this was changed in a short time to raw liver in amounts of 150 to 200 grams per day, which has been kept up ever since. The proportions of carbohydrate, protein and fat in the twenty-four diet were similar to those recommended by Minot and Murphy.

Considering the condition of the patient at the time, and that this was the third remission, the result was both surprising as well as remarkable. The remission developed rapidly, the red cell count rising from 800,000 to 4,600,000 in eight weeks and a normal blood picture was maintained without a lapse of any kind during the succeeding six months. With the improvement in the blood state, the enlarged spleen, visceral congestion, the burning sensation of the tongue, and distressing gastro-intestinal symptoms entirely disappeared. This patient at the time of writing is symptom free, and appears to be in robust good health. For two months he has been able to resume his usual work as a farmer and stock raiser. He will continue under observation and further reports will be made of his subsequent history.

The changes in the blood during remissions following liver therapy have been described by Minot, Murphy and Fitz, and are characterized by the early appearance of reticulocytes and a rapid increase in the number of red cells, with which the hemoglobin keeps pace. Occasionally the number of red cells exceeds that observed under normal conditions, as if an over-stimulation was produced. The leucocytes are likewise increased, sometimes to well above the normal, with an increased percentage of bone marrow leucocytes. As soon as the diet is begun a marked increase in the polymorphonuclear eosinophiles is observed, which persists for quite a long time. After the remission has progressed for several months, the blood picture gradually approaches the normal state, so that it is difficult to detect any abnormal features.

It is now well established that there is a favorable response to feeding liver in all cases of pernicious anemia. Where symptoms referable to the neural system (spinal cord, peripheral nerves and brain) are present, there is less response, although apparently there is no aggravation of preexisting neural symptoms under the liver treatment.

In evaluating any form of therapy, particularly for a condition like pernicious anemia, it is





necessary that it should be carried on through a long period of time. Any details which will increase the palatability of the diet will secure the better co-operation of the patient and necessarily also better results.

The liver diet for each day should best be prepared by some other member of the household besides the patient, or, better still by a nurse. The usual daily portion of eight ounces or 250 grams, is passed three times through a meat grinder, and the resulting pulp is placed on ice. One-half of this amount is served at a time, being placed in a glass tumbler, covered to half its extent with orange juice, after which it is thoroughly mixed until each particle of liver is covered or surrounded by the orange juice. The mixing process is important, and greatly determines the palatability of the mixture. The glass is then filled with orange juice, and after further stirring is poured into a clean glass and served on a tray. If prepared in this manner there should be no odor or taste of liver.

It is most important that the liver diet be faithfully kept up, in fact the patient must live on liver in some form, because lapses in the diet are quickly indicated by a lowering of the blood curve and the return of other symptoms of pernicious anemia.

During the past six months, Dr. E. J. Cohn and his associates in the department of physical chemistry in the Harvard Medical School have isolated a non-protein, non-fat containing fraction of liver, which has been administered by Minot and Murphy to a limited number of patients with pernicious anemia, and with equally successful results as when whole liver was used.

Recently through the kindness of Doctor Minot, a small portion of liver fraction or extract, was sent to us for demonstrative purpose. As prepared, it is a fine yellow powder, soluble in water, with the usual taste and odor of animal extracts, that can be easily covered by the addition of orange juice or similar vehicle. According to Cohn this extract represents 2 per cent of the entire organ, and the effective daily dose is equivalent to about one-third of an ounce or 10 grams. It is expected to be available for commercial distribution within a short time, but the cost of preparation may to a certain extent prohibit its general use by all classes of patients.

In the future, it is hoped that a small portion of the fraction will have the same result as a large amount of liver, and that the promise of its effective action will be fully realized in the

further observation of its use in pernicious anemia.

(We are deeply indebted to Miss Millie Kalsem, B.S., dietitian Cook County Hospital, Chicago, and formerly Iowa Methodist Hospital, Des Moines, for valuable services in supervising the dietetic management.)

#### REFERENCES

- Faber—Annals of Clin. Med., April, 1926.  
 Whipple and Robscheit—Am. Jour. Physiol., 53, Sept., 1920.  
 Whipple—Arch. Int. Med., 1922, XXIX, 711.  
 Whipple and Robscheit-Robbins—Amer. Jour. Physiol., 72, May, 1925.  
 Minot, G. R. and Murphy, W. W.—Jour. A. M. A., 87, Aug. 14, 1926. Boston M. S. J., 195, Aug. 26, 1926.  
 Koessler, Maurer, and Laughlin—Jour. A. M. A., 87, Aug. 14, 1926.  
 Murphy, Monroe, Fitz.—Jour. A. M. A., 88, April 16, 1927.  
 Whipple and Robscheit-Robbins—Proc. Soc. Exper. Biol. & Med., 24, June, 1927.  
 Cohn, Minot, et al.—Jour. Biol. Chem., 74, July, 1927.  
 Koessler and Maurer—Jour. A. M. A., 89, Sept. 3, 1927.  
 Minot and Murphy—Jour. A. M. A., 89, Sept. 3, 1927.

### IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines  
 Commissioner, State Department of Health

#### PREVALENCE OF COMMUNICABLE DISEASES

During the past month the predominating communicable diseases have been whooping cough, smallpox, paratyphoid fever, scarlet fever and diphtheria. There has also been a moderate number of cases of measles. This disease appears however, to be distinctly on the wane. There were also some cases of typhoid fever, poliomyelitis and cerebrospinal meningitis.

*Whooping cough* has been reported from a number of places. It prevails chiefly in a group of counties in the east central portion of the state—most cases having been reported from Cedar Rapids and Waterloo. There are also many cases in Sioux City.

*Paratyphoid Fever*—An epidemic with twenty-five cases reported to date occurred in Perry (Dallas county) in August. From information available to date, it appears that the distribution of the disease was by way of the city water supply.

The occurrence of a single case of typhoid or paratyphoid fever should be the occasion of an immediate investigation as to its source and method of spread. Dr. A. V. Hardy, acting director of the State Hygienic Laboratory at Iowa City, will be pleased to make an investigation. People in general seem to have forgotten the lesson of the armies relative to the great value of protective inoculation against these diseases.

*Smallpox* has been endemic in the southwestern portion of the state—more especially in the

counties bordering the Missouri river, during the past few years. Our smallpox map has shown a new line of the disease radiating out from Council Bluffs every few months during that time.

During July and August a rather large number of cases developed in Boone county. From there it spread south to Polk and Warren counties. Our map shows quite a number of cases around the capital city.

#### FORECAST OF COMMUNICABLE DISEASES

It is with difficulty, under the best of conditions, to accurately forecast the occurrence of epidemics. To make it possible, it is very desirable that there should be very accurate reporting of cases.

*Whooping cough* will no doubt continue to appear in large numbers. Seasonally it tends to decline in the fall and winter. The use of pertussis vaccine which is recommended by some, is not by any means effective in preventing all cases. Its use before the onset of the disease does, however, seem to lessen the severity of the symptoms.

People should more generally appreciate than they do that whooping cough is most "contagious" during the early catarrhal stages—before the characteristic whoop begins.

*Common Colds*—The first big wave of the "common cold" usually occurs in October. We have no reason to believe that there will be any exception to the rule this year.

Physicians are urged to advise the families of their clientele and health officers, the people of their community, that the rigid observance of two simple rules of hygiene will greatly prevent the spread of colds and other communicable diseases. These rules are:

1. Always wash hands with soap and water before eating.
2. Always cover the nose and mouth with a handkerchief when sneezing or coughing.

*Influenza*—Enough cases of this condition have already been reported that we may expect to see it appear in more extensive form. Cases to date have been mild in character.

*Poliomyelitis* (Infantile Paralysis) — Four cases of poliomyelitis have been reported to date (August 22) this month. It has prevailed in more extensive form in California, New Mexico, Ohio, and certain other states in the East.

It is well to remember that poliomyelitis is frequently transmitted by carriers and that travel is rapid and extensive these days. We expect

to see some increase in poliomyelitis—also meningitis.

*Smallpox*—It is expected that the number of cases of smallpox will increase especially in and around Polk county during the next few months. Our recent cases have, for the most part, been very mild and many people seem to have little fear of the disease. One township in Warren county where the disease exists is without a health officer. The local board of health has not been able to find any physician to accept the position. Apparently the compensation is not sufficient.

Altogether too many people are still afraid of vaccination. The older people still remember the very "sore arms" of thirty-five years ago. I am wondering if physicians generally are asking the parents of their clientele to bring in their children for vaccination when they are two or three years old—or at a younger age—if smallpox exists in the community. I believe that our people rather expect their "family" physician to do so.

I believe also that many physicians place too much reliance on a "seven year" or other period of immunity following a successful "take". As a matter of fact, in some cases it lasts a lifetime—in others it is partly gone within a year. When there is an outbreak of smallpox in a community, it is well to advise everybody to be vaccinated unless, perhaps, they have had a successful "take" within five years. If a person is immune, the vaccination will not "take". If it "takes", it indicates that the person was susceptible to smallpox.

#### REACTIONS FOLLOWING VACCINATION

Physicians generally have paid too little attention to "immune" reactions. Too often they have regarded the absence of a "take" as indicating immunity, whereas it may have been due to inert virus or possibly, in some cases, faulty technique.

There is some "reaction" following every effective vaccination with good virus. When a proper technique and a potent vaccine are employed, one of the three following reactions should be expected:

1. *Vaccinia* (primary reaction)—This is the normal "take" occurring in unvaccinated persons who have not had smallpox or in persons whose immunity from a previous vaccination or a previous attack of smallpox has entirely disappeared. A papule appears on the third to fifth day which promptly develops into a vesicle surrounded by an areola of redness and induration.



The vesicle and areola become larger, and the former develops into a pustule, usually reaching a maximum size on the tenth day. The resulting crust falls off usually after three or four weeks.

2. *Vaccinoid* (accelerated reaction)—This type occurs in persons previously vaccinated, or who have previously had smallpox, but who have partially lost their immunity. The reaction runs a more rapid course than does primary vaccination. The period of incubation is shortened to three days or less and the height of the pustular stage is reached about the sixth or eighth day. All the symptoms are less severe than in the primary reaction. The resulting scar, if any, is much smaller and not so deep.

3. *Immune Reaction*—This type occurs in persons who are fully protected against smallpox as a result of previous vaccination or a previous attack of the disease. It resembles a cutaneous tuberculin reaction. Within twenty-four to forty-eight hours after the inoculation, an area of redness about one-half inch or a little more in diameter will appear. It begins to decline within seventy-two hours. A small papule often appears but usually there is no vesicle, or at least a very minute one. This reaction is often reported as a "failure" but is in reality an excellent indication that immunity is present.

If all physicians will call the attention of all their clients to the need, the safety, and the value of vaccination against smallpox, it will be possible to practically exterminate the disease from the state.

A splendid seventeen-page set of "Questions and Answers on Smallpox and Vaccination" designed for the information of physicians is found in "Public Health Reports, volume xlii, No. 4 (January 28, 1927)", of the U. S. Public Health Service. A copy of this report may be obtained for five cents (money, not stamps) from the Superintendent of Documents, Government Printing Office, Washington, D. C.

The State Department of Health has a small four page folder on "Smallpox", designed for the information of the general public. Copies are available without charge.

RAILWAY ELECTRIFICATION

There are 5851 miles of electrically operated railways in the world, of which the United States has 1621 miles, or about 28 per cent, according to a recent report of the American Railway Association. These figures do not include street railways or interurban lines.

A tabulation of electrification in the United States, including lines having more than twenty-five miles electrified and excluding side tracks, yard tracks, etc., follows: C. M. & St. P. Ry., 660 miles; N. Y. N. H. & H. R. R., 158 miles; Virginian Railway, 134 miles; Long Island R. R., 127 miles; Pennsylvania R. R., 118 miles; New York Central Lines, 63 miles; Norfolk & Western Ry., 62 miles; Southern Pacific Lines, 52 miles; B. A. & P. Ry., 46 miles; Illinois Central R. R., 37 miles; Erie Railroad, 34 miles; B. & O. R. R., 32 miles; Great Northern Ry., 26 miles.

PREVALENCE OF COMMUNICABLE DISEASE\* IN THE STATE OF IOWA FOR THE WEEK ENDING MAY 27, 1927

The total number of cases of all forms of communicable disease reported to the State Department of Health was 379, a decrease of 18 per cent on the number for the previous week, and the lowest total number reported in any one week since the beginning of this year. Every disease showed a decrease on the figures for the preceding week except smallpox which showed neither increase nor decrease.

The greatest proportionate decrease in the number of cases of any one disease was for diphtheria. There were only nine places in the state where cases were reported and only three of these (Iowa City 3, Clinton 2, Williams 2) had more than one case reported for their community.

Recently sufficient toxin-antitoxin was shipped by the State Department of Health to Ottumwa to immunize 1200 pupils against diphtheria, and sufficient to Davenport to immunize 2500, and to Scott county outside the city of Davenport, sufficient to immunize an additional 1200.

Measles is declining but not rapidly, and this disease accounted for almost 70 per cent of all cases of communicable disease for the week.

During the week, four anti-rabic treatments were sent out by the department, two to Larchwood (Lyon county) and one each to Farnhamville (Calhoun county) and Osage (Mitchell county).

DISEASE	NO. OF CASES	COUNTIES WHERE MOST PREVALENT
Diphtheria .....	13	Johnson (Iowa City)
Scarlet Fever .....	23	Woodbury-Clinton
Smallpox .....	6	Woodbury (Sioux City 3)
Measles .....	261	Woodbury-Boone-Keokuk-Cerro Gordo-Iowa
Mumps .....	13	Woodbury-Johnson
Chicken Pox .....	25	Boone
Whooping Cough .....	18	Woodbury-Linn
Tuberculosis .....	19	Scott-Johnson (Sanatoria)
Poliomyelitis (acute ant.) .....	1	Black Hawk (Waterloo)

In the cities most cases of measles were reported in Sioux City 90, Keokuk 56, Boone 42, Mason City 11, South Amana 10, Anamosa 8, and Madrid 8.

\*From Communicable Disease Division, per Dr. J. Wallace.

# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

## Publication Committee

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

## SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII                      October, 1927                      No. 10

## COMMITMENT OF PATIENTS UNDER PERKINS AND HASKELL-KLAUS LAWS

Des Moines, Iowa, August 31, 1927.

*To the Judges, County Attorneys and Physicians  
of the State of Iowa:*

From the time the Perkins and Haskell-Klaus Laws were enacted, it has been the desire of the authorities responsible for the conduct of the University Hospital that these beneficent statutes which have helped so many people should be kept absolutely free from every type of abuse. At least one general letter has been addressed to the commitment officers of the state touching this matter, but since official tenure is indefinite, we think the present time not inopportune to send out a second letter in which we desire to respectfully call attention to some matters which experience has shown need to be kept in mind in order that there may be no abuse of the privileges of these laws.

First, it is one of the weaknesses of human nature, which some people find it hard to resist, to want to get something for nothing. It so happens that now and then some one who has no right to enter the hospital under the provisions of this law seeks to do so, and cases have been brought to our attention where patients have been admitted who were amply able to pay for medical treatment. The law does not presume that any such patients should be admitted

and the hospital does not wish to have them admitted. It goes without saying that commitment officers are equally anxious to prevent these abuses, and we are simply calling attention to the fact that now and then there are such abuses, and we would respectfully request that every effort be put forth to see to it that no one not entitled to the provisions of these laws be committed to the University Hospital. It is obvious that if a patient comes with commitment papers, the hospital is under obligation to admit him.

Acting under what we believe to be warranted by the provisions of these laws, we have revised in some respects the blanks to be filled out. One of the objects aimed at is to do away with what experience has shown to be an abuse, namely, a commitment for an unlimited period of time, which commitment allows the patient to return frequently, and sometimes unnecessarily, to the hospital.

We also respectfully ask your cooperation in reducing the expense of escort service to the minimum. This responsibility rests equally upon the hospital authorities and the county officials. No hard and fast rule can be laid down, but this general principle might well apply, namely, that whenever a patient is able to come to the hospital without an escort, no escort should be provided. In order to attain the ends outlined above, the following additions have been incorporated into the commitment papers with the approval of the attorney general:

1. A property statement in the form of an affidavit has been placed upon the commitment blank. This type of control is already in use in certain counties. Moreover, a statement of the physician's opinion as to whether or not the patient's financial status entitles him (or her) to state aid is also included as a part of the examining physician's report. This should make it impossible for anyone to secure free treatment who is able to pay.

2. Commitment papers will be cancelled automatically when the physician in charge of the patient in the University Hospitals signifies that treatment of the malady for which the patient was committed, has been terminated. Under this provision, therefore, the return of a patient to the hospitals will be permitted only when treatment is still under way. In no case will the period of commitment exceed two years.

For the continuation of treatment when necessary, after the expiration of the original two-year period of commitment, there must be a review of the case by the proper county authorities and a recommitment of the patient if his (or



her) financial condition still warrants such action.

In order to avoid the confusion which results when patients arrive at the University Hospitals and find no beds available for their care, there has been added to the commitment papers a clause stating that no patient shall be sent to the University Hospitals until called by the hospital authorities. Obviously, this will operate in no way to delay the admission of any patient suffering from a condition demanding emergency treatment.

It should be remembered that patients who cannot reasonably expect relief from their maladies are not provided for under the statutes, and physicians of the state are urged to cooperate with the hospital authorities to the extent that no persons be committed to the University Hospitals who cannot reasonably be expected to be benefited by treatment. Under the law, such patients cannot be cared for in the University Hospitals and must be returned to their homes immediately, thus entailing great expense to the state without any compensatory benefit to the patient.

We would respectfully call your attention to the fact that individuals who are in limited circumstances but who do not come strictly within the provisions of these statutes, that is, those who are not properly entitled to state aid as indigent patients, may enter the University Hospital as what, for want of a better term, are generally designated as "clinical" patients. Cost, or self-supporting, patients would better describe them. In other words, they are patients who are able to pay what it costs to keep them in the hospital but who can not afford to pay in addition to this the fees usually charged by a physician or surgeon. Such patients under the rules of the hospital may be admitted on the filing of an affidavit with the proper hospital authorities that they are financially unable to pay for hospital service at private rates, and in addition to this they should bring with them a statement from their physician saying that they are entitled to such reduced rates. Charges for this service are based upon actual cost to the hospital, but no charge is made for physician's services. Borderline cases can thus be cared for without bringing an undue burden of expense upon either the state or the individual.

We would respectfully suggest that, when patients of this type present themselves to committing officers and the examination brings out the fact that their circumstances are such that they can pay the charges above referred to, they

be informed of the fact that they can be admitted as "cost" patients as outlined above, but they are not entitled to the provisions of what are known as the Haskell-Klaus and Perkins Laws.

Respectfully submitted,  
GEO. T. BAKER, *President*.  
W. H. GEMMILL, *Secretary*.

COMMITMENT BLANK  
(Chapter 199, Section 4012, Code, 1924)

In the District Court of Iowa, Sitting as a Juvenile Court, in  
and for the County of \_\_\_\_\_

In the Matter of (Name of Patient) }  
Suffering from a Deformity or Malady which } Commitment  
Can Probably Be Remedied. }

And now to-wit, on this \_\_\_\_\_ day of \_\_\_\_\_, 192 \_\_, this matter coming on for hearing, the complaint and other pleadings and the report of the physician appointed to examine said person, having been examined, and all the evidence having been considered, and being fully advised in the premises, it is found that the said (Name of Patient), is a resident of this County and is suffering from a deformity or malady as shown by the report of said physician, and that the same can probably be remedied by surgical and medical treatment and hospital care and that the said person or the parents or other persons legally chargeable with the support of said \_\_\_\_\_ are unable to provide means therefor and have consented in writing, which consent is on file in the office of the clerk of this court, that this order shall be made and entered and that the said person shall be committed to the hospital of the College of Medicine of the State University of Iowa for surgical and medical treatment and hospital care, for the deformity or malady as shown by the report of said physician, or as found by the physician or surgeon in charge of the clinic to which said person shall be assigned for surgical or medical treatment; and that this commitment shall terminate when the physician or surgeon in charge of the clinic shall have signified that the treatment of the deformity or malady has been terminated by him. In no case may a commitment be operative for more than two years.

It is therefore ordered that the said \_\_\_\_\_ be and is hereby committed to the Hospital of the College of Medicine of the State University of Iowa for free medical and surgical treatment and hospital care, to report at such hospital only when notified by the hospital authorities, there to be treated and dealt with as provided by Chapter 199, Section 4012, Code 1924, and \_\_\_\_\_ is hereby appointed to accompany said person to said hospital, and the clerk will issue commission accordingly. Escorts are not to be provided unless absolutely necessary.

It is further ordered that claims for costs and expenses of this proceeding be filed and paid as provided by said Act.

\_\_\_\_\_  
Judge of the Juvenile Court.  
\_\_\_\_\_  
County, Iowa.

To the Judge of the Juvenile Court:

The said patient or those legally chargeable for his support are required to answer the following questions and subscribe to the affidavit following said questions:

Name in full \_\_\_\_\_  
Residence \_\_\_\_\_  
How long have you lived in the County \_\_\_\_\_  
Where are you employed \_\_\_\_\_  
What are your earnings \_\_\_\_\_  
Have you any other income \_\_\_\_\_  
How many in your family \_\_\_\_\_  
What are their ages \_\_\_\_\_  
Do they all live with you \_\_\_\_\_  
How many are employed \_\_\_\_\_  
Give earnings of each \_\_\_\_\_  
Do you own any real estate \_\_\_\_\_  
Give description \_\_\_\_\_

Is it encumbered..... If so, for how much.....  
Do you own any personal property.....  
Give description.....  
Do you carry any health insurance or sick benefits.....  
Are you a member of any lodge?..... If so, give name  
and address of an officer.....  
Have you received any financial assistance from the County or  
any welfare organization.....  
Name of your regular doctor.....  
Are you able to pay any part of the expense.....  
Give names and addresses of two taxpayers of whom inquiry  
may be made concerning your financial circumstances.....  
State of Iowa, County of....., ss.  
I,....., being first duly  
sworn, on my oath state that the foregoing answers are true.  
.....  
Subscribed and sworn to before me this.....day  
of....., 192....  
.....  
Notary Public in and for.....County.

MEDICAL HISTORY OF ILLINOIS

The Illinois Medical Journal for June announce to the doctors of Illinois that volume one of the History of Medical Practice in the State of Illinois is ready for delivery. The second volume is now in preparation.

The History of Medical Practice in Iowa, volume one, is now ready for the binder. The edition for the first volume is limited to 250 copies and is offered for sale at \$4 or \$5.

Volume two will begin with the year of about 1870. The first volume includes biographical sketches of pioneer physicians from the earliest records, or about 1820. History of state and local medical societies, medical schools and other medical institutions, a roster of medical men in the World War; a history service of divisions and hospitals commanded by Iowa medical officers.

The book will be illustrated with many cuts of early prominent physicians. Volume two will contain matter related to men and affairs, knowledge which has come to us since the printing of the first volume, medical laws and other matters that are of more recent date and many other matters more recent than 1870.

Subscriptions may be sent to Dr. D. S. Fairchild, Clinton, Iowa, or Dr. R. R. Simmons at Des Moines, Iowa.

THE NEW YORK MEDICAL CENTER

The story of the New York Medical Center reads like a story from the Arabian Nights. It seems unreal, as if it could not be so. It is now fifty years since we spent a winter in New York City for the purpose of adding to the little knowledge we possessed of medicine. We sought for opportunities to secure something in advance

of what had already been found in the great classes of the College of Physicians and Surgeons, the University of New York and at Bellevue Hospital Medical College. The great medical men in New York were Alonzo Clark, Willard Parker, A. L. Loomis, T. G. Thomas, Alfred Post, J. Marion Sims, Austin Flint, and others of almost equal note. These men were a part of New York; scarcely was there a well informed person who did not know of these men. Only a few years before there was Valentine Mott who occupied the first place. For six hours each day a great class of students flocked into the amphitheaters to listen to the eloquent lectures of these men, strong in speech, commanding in appearance, and possessed of all the knowledge gathered by study and observation.

We listened to these men with never a doubt that they knew all that was known or would be known of medicine and surgery. Only a few engaged in special lines of practice. There was E. C. Seguin, on the nervous system, and Herman Knapp on Ophthalmology, and a few others. In such an environment we gained much in the spirit of medical enterprise, but little in accurate knowledge.

Previous to 1878 there was no pathological laboratory connected with any of the medical schools in New York City. October 9, 1878, Dr. Delafield suggested to Dr. W. H. Welch the establishment of a laboratory for the study of histology and pathology, in connection with the College of Physicians, at a salary of \$500 a year, but it was not until the completion of the Johns Hopkins in 1885 that Dr. Welch realized his ideal of a pathological laboratory in this country.

From this small beginning in New York in 1878 and the organization of the laboratories at Johns Hopkins Hospital in 1885 did the work of Dr. Welch bear fruit and bring about a change in the teaching of medicine in America. From my first visit to the medical institutions of New York in 1880, and on for ten years, but little change could be appreciated in medical practice and teaching. But under the inspiration of scientific methods from that time on a change could be observed and limited opportunities could be secured for graduate work.

Without entering into details, from time to time a more or less frequent visitor could notice a change from the personal influence of a few outstanding individual physicians and surgeons, to the combined influence of institutions under the direction of scientific groups of workers, probably not so well known to the public personally as through the institutions they served.



Now through the consolidation of the Columbia Medical College and the Presbyterian Hospital and other important medical institutions, a wonderful group of buildings is being constructed at 168th street—where we so often witnessed baseball games—that we stand in amazement and wonder at what is being done for humanity and the education of medical practitioners. It is no less a marvel to witness how freely men of affairs, and with a vision, are willing to pour out money for this great work.

Only recently we viewed the rise of this group of beautiful buildings and could not refrain from thinking what had been done in New York City, in the interest of medicine in the period of fifty years since my first visit in search of medical knowledge. I had then been in practice for more than ten years and had a fairly good conception of what I was seeking for, but how different today, when we have at our door every facility for the study of medicine in all its branches, and for research into all that is not clearly known.

---

#### TOMB OF AVICENNA

---

From the Bulletin of the Los Angeles County Medical Association we learn that Dr. John William Shuman, formerly of Iowa, in writing the History of Medicine in Southern California "a number of extraneous matters were brought up, one of which was the tomb of the celebrated Arabian, Avicenna". It is recalled "that it was Sir William Osler's desire to restore the tomb of Avicenna as a sort of culminating achievement of his life's work. In fact, Sir William had started a collection for this purpose." "It is the privilege of the Bulletin to publish for the first time a picture of this tomb and a translation of the inscription thereon. The following letter from Doctor M. Sa'eed to Dr. Shuman is self-explanatory and puts the matter before you in a much more concise way than anything the editor could say. Doctor Sa'eed's letter explains why Dr. Cushing was unable to get these pictures in his publication." The communication is too long for our purpose and we shall only reproduce a portion of this letter.

"Ibn Sina, or Avicenna was born in 980 and died 1036, called the 'Prince of Physicians', a convivial Omarian spirit, eminently successful in practice as court physician and adviser to different caliphs, was one who trod the primrose path at ease and died in the prime of life from the effects of its pleasures".—Garrison.

"After the local people heard of the intention of the late Sir William Osler to rebuild and

beautify the grave of the illustrious Persian sage they were stimulated to do something themselves, but like any other attempts with the Orientals, which after giving off some steam the zeal dies out. They went only a little way. A wall was built around the grounds, a small building called 'reading house' was erected but the old building and its dome which was built over the grave some ninety years ago by a Princess of the Royal House of Oajar dynasty remains almost untouched."

Then follows a description of the tomb and the inscriptions, with several pictures. In addition may be found an article by Dr. F. I. Shalara reprinted from the Syrian World, December, 1926, and sent to Dr. Shuman by Doctor P. Hilli, Beirut, Syria, giving a review of Avicenna.

---

We find an editorial in the Hahnemannian Monthly that expresses the attitude of the homeopathic school of medicine of today. The Monthly declares that today there is a clamor for laboratory investigation. It is admitted that the methods of fifty to seventy-five years ago will not do today, but that the laboratory method, while good in a limited way, as is also experiments on animals, except in working out a technic.

This exponent of homeopathy says, "After reviewing the claims of laboratory workers, we are safe therefore in distrusting the modern trend of the laboratory work to neglect the clinic".

The writer adds further: Academically or logically, the philosophy of homeopathy is sound. We are weak in that we have not kept pace with the times and allocated to homeopathy its field of utility, as well as bringing up the study of drug action to modern scientific standards, and the writer quotes Dr. C. H. Mayo, who says, "Hahnemann was a great medical reformer, but he committed the error of limiting his study to drugs".

---

#### NEGLIGENT TREATMENT OF DISLOCATION OF ARM

---

(Blex vs. Flack, et al. [Kan.], 247 Pac. R. 640)

The Supreme Court of Kansas, in affirming a judgment against one of the defendants after a jury had awarded damages against him of \$5,000, in favor of the plaintiff, says that it appeared that when the plaintiff was injured he was first taken to the office of the other defendant, who made an examination but stated that he was not feeling well and suggested that the plaintiff be taken to another physi-

cian, and he was taken to the office of the physician against whom judgment was rendered, who declared that the plaintiff's injured arm was broken and dislocated. It appeared that the diagnosis that there was a fracture of the bone was incorrect, but recovery could not be nor was built on that error. As to the reduction of the dislocation, the evidence tended to show that it was reduced at the first treatment, but that the arm was not bandaged in such a way as to prevent a redislocation. Although there was some conflict in the evidence as to the proper method of bandaging and treating a dislocation, there was testimony of physicians that the method employed by this defendant in bandaging the arm and binding it to the body was not proper or such as ordinary care required. The evidence also showed a lack of care after the first treatment. When this defendant's attention was called to the condition of the arm, that it cracked when moved, and that a bone was sticking up, he still insisted that it was all right and doing as well as could be expected. On the suggestion that a roentgenogram of the arm should be made, he advised that it was not necessary. The court thinks that the evidence was sufficient to show that he failed to exercise that reasonable care and skill which the law requires of one of his profession, and that the bad condition in which the arm was left was the result of his negligence.—The Journal of the A. M. A.

### STERILIZATION OF DEFECTIVES

The state of Virginia passed an act March 20, 1924, approving the sterilization of certain defectives when the sterilizing may be affected without serious pain or danger, and when the sterilization of such individuals will relieve the commonwealth of the burden of supporting such defectives who if released would be a menace to the community. It further recites that if sterilization is effected, defectives may in many instances be released without danger to the community and may become self-supporting with benefit to themselves and to the community.

A case was brought before the Supreme Court of the United States upon the theory that the statute authorizing the judgment was void under the fourteenth amendment as denying to the plaintiff in error due process of law and the equal protection of the laws.

The case was the sterilization of a feeble-minded white woman who had been committed to the Virginia State Colony for epileptics and feeble-minded and who was the daughter of a feeble-minded mother in the same institution and the mother of an illegitimate feeble-minded child.

The opinion rendered by Justice Holmes says: "There can be no doubt that so far as the procedure is concerned the rights of the patient are most carefully considered, and as every step in this case was taken in scrupulous compliance with the statute and

after months of observation, there is no doubt that in that respect the plaintiff in error has had due process of law".

The judgment upon which the order of sterilization was based found that the plaintiff in error "is the probable potential parent of socially inadequate offspring, likewise afflicted, that she may be sexually sterilized without detriment to her general health and that her welfare and that of society will be promoted by her sterilization".

In affirming the judgment of the court below, the supreme court said, "It is better for all the world if instead of waiting to execute the degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind".

"The principle that sustains compulsory vaccination is broad enough to cover cutting the Fallopian tube. Three generations of imbeciles are enough".—Abstracted from the Boston Medical and Surgical Journal.

### THE SALE OF ULTRA-VIOLET GENERATORS DIRECTLY TO THE PUBLIC

Dr. Arthur McCormick publishes a report of the Council on Physical Therapy of the American Medical Association in the Kentucky Medical Journal for April, which is as follows:

The Council on Physical Therapy of the American Medical Association, on the basis of the present available evidence, is convinced that the sale of generators of ultra-violet energy to the public for self-treatment is without justification. The Council bases its condemnation of the sale of such apparatus for this purpose on the following grounds:

1. The uninformed public could not take the proper precautions in administering treatments and, as a result, several general burns to the great injury of the eyes might ensue.

2. Those not familiar with the possibilities of such apparatus would be led to place unwarranted confidence in the therapeutic value of such treatment by the claims that might be made in the literature advertising such generators, and to undertake to treat serious conditions not amenable to such treatment.

3. The unrestricted possession of such therapeutic means would tend to deprive people of expert diagnosis by encouraging them to make self-diagnoses.

4. Such practice would encourage the sale of useless and fraudulent lamps which would be advertised as generators of ultra-violet rays, since the public would have no means at its disposal to determine the quality or quantity of the radiant energy emitted by such lamps.

For the foregoing reasons, the Council on Physical Therapy considers as detrimental to public welfare the sale or the advertising for sale, directly to the public, of a generator of ultra-violet energy.



Under rule 11 of its official rules, the Council will declare inadmissible for inclusion in its list of accepted devices for physical therapy, apparatus manufactured by a firm whose policy is in this matter detrimental to public welfare.

### ESTABLISHMENT OF KINDERGARTENS

Iowa joined the ranks of the most progressive states in the country this year by passing a law which provides for the establishment of kindergartens on petition of the parents of twenty-five children between five and six years of age.

California was the first state to obtain such a law and in consequence it now has a much larger percentage of its children in kindergarten than any other state.

The importance of providing for our five-year-old children educational advantages suited to their years is now quite generally conceded. England has spent public funds on children as young as two years old for a number of years, and the subject of nursery schools is being widely discussed in this country. Let us at least provide for our five-year-olds. Let us not longer put off the establishment of kindergartens which have long since demonstrated their value as a means of reducing the evil of retardation and of making happier and better children and citizens.

Blank petitions and leaflets on the subject may be obtained from Mrs. H. J. Burdick, rural route No. 2, Cedar Falls.

### NOTICE OF EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE

Examinations of candidates for entrance into the regular corps of the U. S. Public Health Service will be held at the following named places on the dates specified: At Washington, D. C., November 7, 1927; at Chicago, Illinois, November 7, 1927; at New Orleans, Louisiana, November 7, 1927; at San Francisco, California, November 7, 1927.

Candidates must be not less than twenty-three nor more than thirty-two years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written, and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the president, with the advice and consent of the senate.

Requests for information or permission to take this examination should be addressed to the surgeon general, U. S. Public Health Service, Washington, D. C.

H. S. Cumming,  
Surgeon General.

### SOCIETY PROCEEDINGS

#### Clayton County Medical Society

Clayton County Medical Society, at a recent meeting, invited the doctors and their wives of Fayette and Delaware counties.

#### Mitchell County Medical Society

Dr. and Mrs. G. E. Krepelka entertained the members of the Mitchell County Medical Society and their wives Friday evening, August 19, at a six o'clock dinner, followed by a meeting at the Krepelka Hospital, Stacyville.

#### Ringgold County Medical Society

The September meeting of the Ringgold County Medical Society was held in the Methodist Episcopal church, Mount Ayr, September 30, and was a goitre clinic exclusively. This clinic was conducted by Dr. C. B. Luginbuhl, of Des Moines. There was a good attendance of doctors and also a large attendance of the laity. There were nine cases of goitre examined and these included practically all forms of goitre. The clinic was entertaining, beneficial and instructive.

The next meeting of the Ringgold County Medical Society will be held on October 28, and will be held in the assembly room of our new court house. This meeting will be a heart and lung clinic and will be under the direction of the Iowa Tuberculosis Association. The clinic will be conducted by Dr. M. M. Myers in the heart clinic and Dr. J. H. Peck in the lung clinic. Both these doctors are from Des Moines.

Dr. S. Bailey, Secretary.

#### Medical Society of the Missouri Valley

The Medical Society of the Missouri Valley held its fortieth annual meeting at Des Moines on the 14th, 15th and 16th of September.

Considering the weather, the meeting was fairly well attended. The dates given above came during the climax of a wave of intense heat which swept over the midwest. This undoubtedly had its effect on the attendance which was not so good as it would have been otherwise. However, over 200 registered, and it is estimated that some hundred or so attended but did not register.

The program was printed in the August number of the Iowa Medical Journal, so that a detailed account in this report is hardly necessary.

Four very interesting clinics were held during the sessions—a neurological clinic by Dr. Lewis J. Pollock of Chicago, a urological clinic by Dr. Herman L. Kretschmer of Chicago, a surgical clinic by Dr. Wm. T. Coughlin of St. Louis, and a gastroenterological clinic by Dr. Geo. B. Eusterman of Rochester, Minn.

Outstanding were the addresses of Dr. A. J. Carlson on Facts and Fancies of Present Day Organotherapy, and later on Recent Developments in Gastro-intestinal Physiology; of Doctor Pollock on

the Peripheral Signs of Nerve Injury; Dr. Ralph H. Major on the Etiology and Treatment of Hypertension; Dr. David P. Barr on The Cancer Problem; Doctors Plass and Smith of Iowa City on Foreign Protein Treatment in Gynecology and A Typical Chronic Glomerular Nephritis, respectively. All the addresses and papers were of high standard, and to mention each adequately would be to review the program.

On Wednesday, Dr. Richard L. Sutton of Kansas City gave a lecture on his interesting experiences in hunting tigers in the Far East. The lecture was illustrated by almost 400 lantern slides. One could hardly praise enough the power of this speaker to interest an audience. Doctor Sutton kept up a regular machine-gun fire of wit from start to finish, and gave us a most interesting picture of his varied and dangerous adventures. If the Doctor ever speaks again in this vicinity, we shall be there in a ring-side seat.

On Thursday evening a very delightful banquet was held at the Wakonda Club. This had been arranged by Dr. G. N. Ryan of Des Moines, to whose credit also goes much of the success of the meeting, as he was chairman of the local committee of arrangements. Together with an excellent repast a charming musical program was given. The retiring president, Dr. Thos. G. Orr, of Kansas City, gave a short address on Salt in Medicine. Following this a number of impromptu speeches were called for, and many of the members of the Missouri Valley Medical Society showed great facility in extempore humor.

At the close of the meeting the members and guests were unanimous in declaring it a successful one.

---

### PERSONAL MENTION

Dr. A. S. Fourt, formerly of the Veterans Hospital at Lafayette, Indiana, and of the Iowa State Hospital at Iowa City, has located in Brighton. Dr. Fourt is a graduate of the Medical School, Iowa State University, of five years' standing.

Dr. D. J. McCarthy of Davenport, who served in Rumania during the World War, has been decorated with the Order of Queen Maria. On a former occasion Dr. McCarthy was decorated with the Order of Regina Maria.

Dr. J. M. Kregstin has opened an office at Sioux City. Dr. Kregstin is a graduate of the School of Medicine, Iowa State University.

Dr. D. C. Steelsmith of Dubuque has purchased an interest in the Sibley Hospital. Dr. Steelsmith will open an office for private practice. For the past seven years he has served as health physician at Dubuque.

Dr. Thomas B. Murphy of Peterson has passed the United States regular army examination for the Medical Corps and has been ordered to report for duty at Washington.

Dr. Thomas Bess of Ft. Madison is arranging for a four month period of study in London, as a preparation for specializing in surgery.

Dr. W. J. Connell has been made director of the City of Dubuque Health Bureau, to succeed Dr. Steelsmith.

---

### MARRIAGES

Dr. William Presnell of Algona and Miss Helen Merle Phillis of Maquoketa were married at Iowa City, June 10, 1927. Dr. Presnell is a graduate of the Medical School of Iowa State University and is serving an internship at Panama. After completing his internship about September 1, Mrs. Presnell will join her husband at Panama for missionary service in the Belgian Congo.

Dr. Roy Keech of Cedar Rapids and Miss Myrtia Ethel Wilson of Rock Island, Illinois, were married at the home of Dr. A. L. Murry, August 20. Dr. Keech is a graduate of Rush Medical College and saw service overseas in the Ninetieth Division.

Dr. Arthur Garside of Davenport and Miss Mary Blake of Dubuque were married at St. Patrick's church in Dubuque, August 10. Dr. Garside is associated with Drs. White and Senty at Davenport.

---

### OBITUARY

Dr. Salathial Corydon McKitrick died at his home in Tabor, August 6, 1927.

Dr. McKitrick was born December 23, 1847 at Plain City, Ohio. After finishing the county schools he attended Central College and the University at Lebanon, Ohio. He taught school for several terms before coming West in 1871, where he taught school for some time.

On March, 1875, he married Miss Priscilla Bullock of Villisca. Dr. McKitrick graduated from Cincinnati Eclectic Medical College in 1888. He first located in Randolph. In 1892 he moved to Tabor.

Surgeons who began practice within the last ten or fifteen years recall the activities of Dr. Robert F. Weir of New York. Dr. Weir was one of the distinguished surgeons who began practice in the years before the advent of antiseptic and aseptic methods and found himself in full sympathy with the new methods.

Dr. Robert F. Weir was born in New York in 1838. Graduated from the College of the City of New York in 1854 and received his degree in medicine from the New York College of Physicians and Surgeons (Columbia) in 1859. He served as assistant surgeon U. S. Navy throughout the Civil War and was in charge of a hospital at Frederick, Maryland, from 1862 to the end of the war. For many years he was attending surgeon at the New York and Roosevelt Hospitals. He served for several

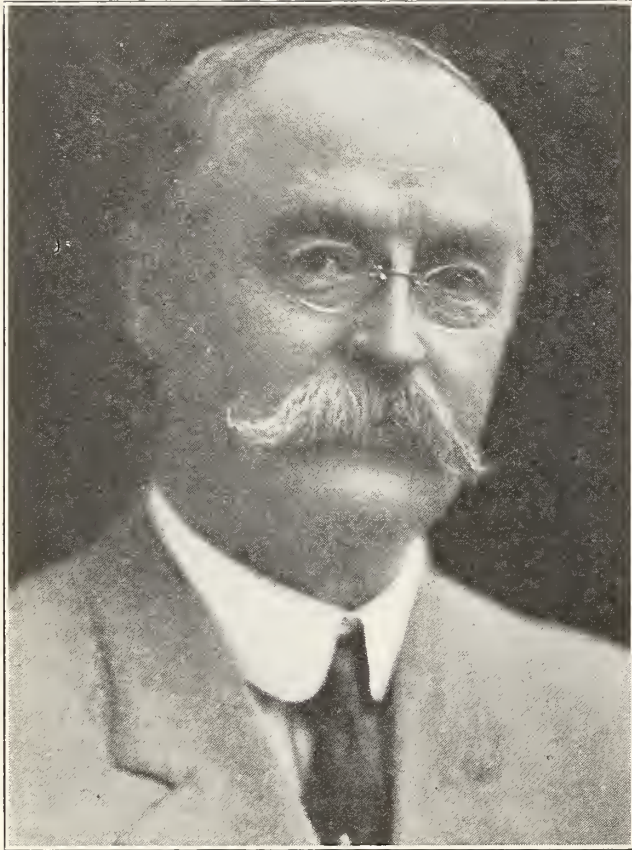


years with Dr. Wm. T. Bull as professor of surgery at Columbia University.

Dr. Weir was a prolific writer and contributed numerous papers, especially on appendicitis.

We are again called upon to record the death of one of our most cherished and respected members. Dr. A. M. Linn died at his home in Des Moines, August 22, 1927.

He was born in Pennsylvania, graduated from Iowa Wesleyan University in 1877. In 1883 he came



DR. A. M. LINN

to Des Moines to engage in the practice of medicine, where he has resided and practiced since that time.

Dr. Linn was at one time president of the Iowa State Board of Health. He was at the time of his death a member of the Polk County Medical Society.

Those of the medical profession who have to do with the medical activities of the World War, particularly in neuropsychiatry as it existed in the drafted soldier, will recall Dr. Thomas William Salmon of New York, who was drowned in Long Island Sound while yatching August 13, 1927.

Necropsy disclosed that Dr. Salmon had a brain tumor and that there had been a cerebral hemorrhage.

Dr. Salmon graduated from the Albany Medical College in 1899 and was at the time of his death fifty-one years of age. Dr. Salmon had occupied places of high responsibility in psychiatry.

## BOOK REVIEWS

### THE SURGICAL CLINICS OF NORTH AMERICA

Volume 6, Number 4, Mayo Clinic; 274 Pages, 91 Illustrations. Price Per Clinic Year: Paper \$12.00, Cloth \$16.00. W. B. Saunders Company.

This number has for its introduction a clinic by Drs. W. J. Mayo and Arthur C. Johnson on Ectopic Kidney, Presenting as Pelvic Tumor, Recurring Epistaxis From Chronic Hemorrhagic Purpura; Meckel's Diverticulum. This group of cases represents a clinic of great interest, fortunately not common, but when they occur, cause much anxiety. A second clinic is by Drs. C. H. Mayo and Lester D. Powell, The Colon as a Urinary Receptacle. The statement of the great relief and comfort in cases of extrophy of the bladder from transplanting the ureter into the sigmoid is a matter of interest. This discussion and presentation of illustrative cases renders this particular clinic number one of exceptional value and brings in the Coffee principle of bringing the ureter for about 3 cm. between the mucus membrane and the muscle wall and thus prevents the flow of infectious fluids from the bowel through the ureter to the kidney. About one hundred cases of exstrophy of the bladder have come to the Mayo Clinic, of which seventy have been treated by transplanting the ureter into the bowel. Several clinics are devoted to surgery of the urinary tract and a considerable section of this number is given to the surgery of the Biliary System. After considering some questions in relation to Retro-tracheal Goiter by Pemberton, Dr. M. S. Henderson takes up Surgical Lesions of the Hip Joint; followed by Henry W. Meyerding on Chronic Arthritis with Loose Bodies and Genu Varum, etc. Both clinics are of unusual interest.

This, the Mayo Clinic Number, is of very considerable interest and value and worthy of careful reading and study.

### THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR

Volume 6, Sanitation in the United States. By Colonel Weston P. Chamberlain, M.C., in The American Expeditionary Forces. By Lieut.-Col. Frank W. Weed, M.C. Prepared Under the Direction of Maj. Gen. W. W. Ireland, The Surgeon General, U. S. Army. Government Printing Office, Washington, D. C., 1926.

This volume of 1141 pages is divided into two sections. The first section relates to Sanitation in the United States and discusses in detail the Sanitation and Sanitary Inspection of the Several Camps. Sanitation in the United States is divided into twenty-

two chapters, including as many subjects relating to provisions for the health of the soldiers.

The second section, relating to Sanitation in the American Expeditionary Forces, is divided into fifteen chapters, each chapter discussing certain features of combat division service. One point we note in particular, the Bathing and Disinfection of the 42nd Division, which we had read and published in part in the history and the combat activities of the 42nd Division as being in part our own division and which is referred to in this volume.

#### A TEXT-BOOK OF CLINICAL NEUROLOGY

By Israel S. Wechsler, M.D., Assistant Professor of Clinical Neurology, Columbia University, New York; Attending Neurologist, The Montefiore Hospital, New York. Octavo Volume of 725 Pages with 127 Illustrations. W. B. Saunders Company, 1927. Cloth \$7.00.

Dr. Wechsler's effort in the field of medical literature, as shown in this work on Clinical Neurology, is to be commended on various grounds. While he does not claim exhaustive treatment of the field, this volume is a distinct contribution of merit as a medium of teaching. The omission of chapters dealing separately with the anatomy and physiology of the nervous system, is explained by Dr. Wechsler, the essentials in this direction being supplied, so far as is necessary in the consideration of each disease as it is discussed. The first sentence of the preface is striking in its aptness, and furnishes the keynote to the body of the book; he says, "Of all the branches of medicine, clinical neurology lends itself best to the interpretation of signs and symptoms in terms of diseased structure and function". The arrangement and grouping of subjects may differ from that found in other text-books, but is justified by the test of proven practicability in teaching. Special stress is laid by the author, upon the examination of the patient, not only from the neurological standpoint, but from the general and psychiatric angles as well, thus obtaining the complete clinical picture essential to intelligent diagnosis. Chapters on psychometry and on the neuroses are interesting and important sections helping to round out Dr. Wechsler's presentation of his subject. H. R. R.

#### ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1926

With Comments that Have Appeared in The Journal. Cloth, Price \$1.00. Pp. 73. Chicago: American Medical Association, 1927.

Those who are interested in the work of the Council on Pharmacy and Chemistry, and this includes all who have to do with the therapeutic use

of drugs, look forward each year to the volume which gives the reasons for the Council's rejection of the preparations found unacceptable for inclusion in New and Nonofficial Remedies. These reasons are given in the Annual Reprint of the Reports of Council on Pharmacy and Chemistry; in addition the book gives the reasons for the omission of certain preparations from New and Non-official Remedies during the year, and contains several special reports of a general nature authorized by the Council for publication.

Reports are given on the following articles found not acceptable for New and Non-official Remedies: Allonal, Animasa, three benzyl benzoate preparations, Ceanothyn, Cresog, Firma Chloro, Idozan, Malt Nutrine, Murarsenide, Naftalan, Neo-Reargon, Nontox, Numoquin, Oleosolution, "Pabst Extract—The 'Best' Tonic", Phenoseptine Cones and Phenoseptine Powder, Pollen Antigen Spring Type-Lederle, Rad-X-Solution A and Rad-X-Solution B, Robes' Antirheumatic Injection, Sodium Methylarsenate (De Marsico) Ster-Alco, Sulcitacium, Tetradol, Thymo-Borine, Toxivi, Toxok, and Triophos. Besides these there are reports on a number of articles that have been omitted from New and Non-official Remedies.

The volume also contains the following special reports of current interest to physicians: a report on the status of bacillus acidophilus and bacillus bulgaricus therapy, on the basis of which the N. N. R. article on Lactic Acid-Producing Organisms has been revised and rewritten; a report dealing with the esteem in which antistreptococcus serum is now held by leading surgeons, gynecologists and obstetricians, prepared by Dr. Emil Novak on the basis of the answers to a questionnaire sent to representative members of these groups; and a preliminary report on the status of the new drug, Ephedrine.

#### TEXT-BOOK OF BACTERIOLOGY

By William W. Ford, M.D., Professor of Bacteriology, School of Hygiene and Public Health; Lecturer on Hygiene, School of Medicine, Johns Hopkins University; Octavo of 1069 Pages with 186 Illustrations. Philadelphia and London: W. B. Saunders Company, 1927. Cloth, \$8.50 Net.

The subject of bacteriology now justly occupies the foreground of medical education. Researches in this field have, and are still, multiplying our knowledge of human disease. To be modern a text-book must undergo frequent revision or new editions must take their place. This new text-book by Professor Ford will, without doubt, receive immediate and favorable attention since it embodies all of the important recent discoveries of the science. As a text-book it may receive criticism because of its encyclopedic scope, covering, as it does, a wealth of material that could never be fitted into the teaching time now allotted to the subject. It would also appear that too little space has been allotted



to the application of bacteriologic facts to the actual practice of medicine. However just these criticisms might be, still it must be said that as a reference guide the volume stands preeminent on this subject.

The first section devoted to general bacteriology is most excellently presented and embodies all methods of technique commonly employed as well as those more unusual in general bacteriologic practice. Part II is devoted entirely to systematic bacteriology. In this section the rare, as well as the usually described bacteria, are presented with suitably concise statements regarding their habitat, methods of cultivation, staining reactions, morphology and pathogenic characteristics. Parts III and IV deal with the distribution of bacteria and problems of immunity and the immune bodies. Part V presents a wealth of information of the important group of spirochete bacteria while Part VI discusses at some length the known biological facts regarding that group of infectious microorganisms of undetermined character.

This volume comprising 1069 well filled pages is highly recommended to the bacteriologist; the physician and the advanced student in medical sciences.

---

#### NEW AND NON-OFFICIAL REMEDIES, 1927

Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1927. Cloth. Price, Postpaid, \$1.50. Pp. 473 XLVII. Chicago. American Medical Association.

The appearance of the annual edition of New and Non-official Remedies is looked upon as an event among all those interested in drugs and their therapeutic use. The text is so carefully scrutinized and revised each year by the various members of the Council on Pharmacy and Chemistry that each issue is essentially a new book, a safe guide to the frontier that lies between the official drugs and the latest preparations launched by the pharmaceutical manufacturers.

The mechanism of the book is excellent: each preparation is classified, and each classification is preceded by a general and critical discussion of the group by one who is an authority on the subject; there is an exhaustive index not only to the contents of the book, but also, separately, to the literature concerning the host of preparations that the Council has found unacceptable for inclusion. A glance at the book shows that the most important single revision this year is that of the general article on Lactic Acid-Producing Organisms, which has been radically revised and rewritten to show the present status of therapy in this field. Further perusal shows that many preparations have been omitted. The preface explains that many of these have been omitted because the manufacturers or

distributors have not presented evidence to demonstrate their continued eligibility. Some have been omitted because they have become official articles by inclusion in the tenth edition of the U. S. Pharmacopeia; such articles, when marketed under the pharmacopeial name or synonym, and without special claims, do not require description in New and Non-official Remedies.

Among the preparations newly admitted to the book are: Isacen, a product related to phenolphthalein; Ipral, a barbitol hypnotic; a cod liver oil concentrate having a definite vitamin A and vitamin B potency; and three erysipelas streptococcus antitoxin preparations.

New and Non-official Remedies is indispensable to any physician who prescribes drugs. It contains information about medical products which cannot be found in any other publication.

---

#### HOW TO MAKE THE PERIODIC HEALTH EXAMINATION

A Manual of Procedure, by Eugene Lyman Fisk, M.D., Medical Director, Life Extension Institute and J. Ramser Crawford, M.D., Assistant Medical Director, Life Extension Institute; Foreword by Major General Merritte W. Ireland, Surgeon General United States Army, The Macmillan Co., New York, 1927. Price \$4.00.

Periodic health examinations have for some time past been greatly and justly stressed by the medical profession. Their great importance in the maintenance of health is being more and more appreciated by the laity. It is therefore timely that this volume, compiled by able authorities, should be written. The systematic physical examination conducted by a competently trained observer will reveal slight or beginning functional or structural impairment which often, by well advised corrective measures, will promptly be alleviated and serious permanent damage prevented. Such a systematic method of examination is outlined and amply elucidated in this volume.

Besides the authors, whose practical experience so well fit them to this undertaking, sixteen other nationally and internationally known authorities have contributed to the volume in the form of introductions to the various chapters. The reader is carried through the details of orderly history taking and the compilation of correct records directly into the regional examination of the individual. Thirteen sections devoted to the regional examination are orderly and delightfully direct in presentation. Special laboratory tests are discussed in a separate section with emphasis placed upon the indications for and the interpretation of, these tests.

The final section of the volume (about one-fifth of the page space) is devoted to the details of counseling the patient regarding the abnormalities

revealed. Therapeutics are not discussed but the application of hygienic principles, proper use of foods, rest and exercise and mental hygiene are carefully and thoughtfully presented.

This volume is the most worthwhile treatise on this subject that has come to my attention.

R. R. S.

#### THE PRACTICAL MEDICAL SERIES

Under the General Editorial Charge of Charles L. Mix, A.M., M.D. This Volume is One of a Series of Eight Year-Books, Issued at Various Intervals During Each Year. They Cover the Entire Field of Recent Medicine and Surgery, and Each Volume is Complete on the Subject of which it Treats for the Year Prior to the Time of its Publication. Price of this Volume \$3.00. Price of the Series of Eight Volumes \$15.00. The Year Book Publishers, Chicago, Ill.

The volume before us is edited by Dr. Evarts A. Graham, the brilliant St. Louis surgeon and professor of surgery of Washington University, and surgeon-in-chief, Barnes Hospital. This volume contains a considerable variety of surgical subjects illustrated with many cuts.

#### INTERNATIONAL CLINICS

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on the Various Branches of Medicine. Edited by Henry W. Cattill, A.M., M.D., and Charles H. Mayo, M.D.

This volume contains several clinic lectures of general medical interest, among them is a series of papers on the heart, one by Ernest Romberg, M.D., Munich, one by Professor W. M. De Vries of Amsterdam, Holland, and one by James J. Walsh of New York. In addition to the medical papers there is an account of the Cleveland meeting of the Interstate Post-Graduate Assemblies of North America.

#### POTASSIUM AND TARTRATES

A Review of the Literature on Their Physiological Effects, by Ralph W. Webster, Ph.D., M.D., Professor of Medical Jurisprudence in the University of Chicago (Rush Medical College), Chicago, Ill., Director of Chicago Laboratory, with a Digest and Bibliography of the Literature, by W. A. Brennan, A.B. The Commonwealth Press, Chicago, Illinois, 1927. Price \$2.50.

This volume is presented as a complete review of our knowledge to date upon the subject of Potas-

sium and the Tartrates. These substances are now of great interest because of their use in food substances. The volume deals with the physiological effects of these ions upon vital human structures. The literature upon the subjects is reported in abstracts and grouped for ready reference.

The book will prove valuable to those engaged in any form of research upon the salts of these substances as well as that larger group of physicians interested in the matter from the standpoint of the use of these substances in foods.

R. R. S.

#### MANUAL OF THE DISEASES OF THE EYE, FOR STUDENTS AND GENERAL PRACTITIONERS

By Charles H. May, M.D., Director and Visiting Surgeon, Eye Service, Bellevue Hospital, New York, 1916 to 1926, etc., etc. Twelfth Edition, Revised, with 374 Original Illustrations Including 23 Plates, with 73 Colored Figures. William Wood and Co., New York, 1927. Price \$4.00.

This text-book needs no introduction to the medical profession since it has for the past quarter of a century been extensively accepted as the standard teaching volume in this specialty. The volume is now in its twelfth American edition, having been reprinted in every edition save the first. It has been translated in seven foreign languages and is now in its fifth British edition. This record bespeaks the universal recognition accorded this work.

Dr. May in this new edition has maintained his policy of furnishing a text sufficiently complete, yet compact, covering the commoner diseases of the eye, suited to the needs of medical teaching. He has foresworn the temptation, ever present with the medical writer, of expanding a text to encyclopedic proportions with the passing of editions. Such a course has been most wise since any other would have defeated the purpose of the volume as a text for medical students.

This edition has been thoroughly revised and brought into conformity with all the newer thought and practice in this specialty.

R. R. S.

#### A PRIMER FOR DIABETIC PATIENTS

A Brief Outline of the Treatment of Diabetes with Diet and Insulin. Including Directions and Charts for the Use of Physicians in Planning Diet Prescriptions. By Russell M. Wilder, M.D.; Section on Nutrition Division of Medicine, Mayo Clinic. Third Edition, Reset, 12 Mo. of 134 Pages. W. B. Saunders Company, 1927. Cloth \$1.50 Net.



### EXHIBITORS AT MEETING OF THE MEDICAL SOCIETY OF THE MISSOURI VALLEY

The following firms had exhibits at the Fortieth Annual Meeting of the Medical Society of the Missouri Valley held recently in Des Moines. The Officers of the society join with the Arrangements Committee in expressing their appreciation for the help and assistance which these exhibitors gave to making this meeting the success that it was: Standard Chemical Co., Wm. R. Warner & Co., Standard X-ray, Victor X-ray, Squibb's, Brann Drug, Saverude Drug, Flynn Dairy, Cameron's Surgical Specialty Co., Deshell Laboratories, Inc., Harrower Laboratory, Denver Chemical Mfg. Co., Burkett Motor Company.

### HORMONES

In the work of metabolism the hormones contributed by the various ductless glands—the endocrine chain—play the chief role. The hormone of the suprarenal gland is credited with two distinct functions; it stimulates the glycogenolytic function of the liver, and it either stimulates the sympathetic system of nerves or duplicates the effect of such stimulation on the body.

This hormone is known among physicians every-

where as Adrenalin. It is the first hormone ever isolated from any of the glands of internal secretion. Parke, Davis & Co., who discovered it on the advent of the twentieth century, gave it the name Adrenalin, signifying its derivation from the adrenal or suprarenal glands.

In order to make sure of obtaining the original product, physicians are advised to designate it by its original name—Adrenalin.

### NEW AND NON-OFFICIAL REMEDIES

Chicago, Illinois, August 27, 1927.

In addition to the articles enumerated in our letter of July 30th, the following have been accepted:

Abbott Laboratories:

Acetarstone.

Amiodoxyl Benzoate—Abbott.

Ephedrine Sulphate—Abbott.

H. K. Mulford Co.:

Diphtheria Toxin-Antitoxin Mixture, New Formula, Park-Banzhaf's 0.1 L +.

Erysipelas Streptococcus Antitoxin (Concentrated—Mulford.

Nonproprietary Articles:

Amiodoxyl Benzoate.

W. A. Puckner, Secretary,  
Council on Pharmacy and Chemistry.

## Don't Buy Gold Bricks

The Publishers of this Journal believe the readers have a right to trust the advertisements as much as editorials and news.

Therefore, we are careful to investigate the firms and their copy before we make contracts with them.

We will not accept advertisements of medicinal products that are not approved by the Council on Pharmacy and Chemistry of the American Medical Association. Nor will we knowingly print advertisements of any nature that are not believed to be entirely reliable.

We want every reader to say:—"I saw it advertised in my own State Medical Journal and I can safely purchase and prescribe it."

These facts being true, our subscribers should, other things being equal, give preference to the firm, goods, and institutions advertised in these pages. All our advertisers are in the A-1 class. They want your patronage and it should be a duty, as well as a privilege, to buy from them.

The lumberman who bought a "gold" brick prided himself on the fact that he never read newspapers. Read the advertisements in this Journal. *DON'T BUY "GOLD" BRICKS.*

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, NOVEMBER, 1927

No. 11

(Symposium: Heart Disease—No. 1)

## HEART DISEASE; INCIDENCE, ETIOLOGY AND ECONOMIC ASPECT\*

JAMES S. GAUMER, M.D., Fairfield

In opening the symposium on heart disease, it will be my endeavor to inquire into the incidence, etiology and economic aspect of these conditions from reports available by clinicians in the various cardiac clinics, members of different associations and societies formed for the especial study of cardiac disease and from statistics made by the health departments in different cities and states including our own state of Iowa.

It is proper to investigate and determine whether we may lessen, even in a degree, the increasing number of human beings whose youthful development is impaired, earning power in their most useful period of life lessened, and if we may diminish further the disability and invalidism which in later years is produced by heart disease.

### INCIDENCE

Heart disease is the greatest single cause of death in the United States. The annual quota is now close to 200,000. Yet in 1910 it occupied only third place in the leading cause of death in New York City, being preceded by pneumonia and tuberculosis. In 1922 heart disease caused 12.8 per cent and in 1925 it was the cause of 15.7 per cent of all deaths in the United States. In 1925 it produced double the number of deaths that were caused by either nephritis, pneumonia or cancer and almost double the number of deaths that were caused by either tuberculosis or cerebral hemorrhage. It is estimated that at least 2 per cent of the people of the United States, or over 2,000,000 persons have serious heart disease. The figures of the draft examinations would indicate that there are 4,000,000 persons in the United States who have heart

lesions and these examinations were limited to ages which should show an incidence of heart disease under the average.

As shown in the statistical report made by Wyckoff and Lingg in a study of 1000 patients in the cardiac clinic at Bellevue Hospital, slightly less than two-thirds of the patients were males and slightly more than one-third were females. The figures of the Metropolitan Life Insurance Company show the rate to be slightly higher in females up to the age of twenty-four and after that somewhat higher in males; arteriosclerosis was much more usual in men than in women. However there is but slight difference for the two sexes in the death rate for organic heart disease, taking all statistics.

Cardiac disease was responsible for almost 3000 deaths in Iowa in 1925 with a slightly larger number among males than females. In a statistical study by Dr. Merrill M. Myers of 1317 patients, a preliminary report estimates that there are nearly 50,000 cases of crippling heart lesions in Iowa alone. The mortality tables of heart disease show that there are probably at least 150,000 deaths in the United States each year attributed to other causes (especially to influenza) which are in reality due to diseases of the heart. One in every six or seven deaths is due to heart disease, and for every death during a year there are seventeen patients still alive who are suffering from it, while in tuberculosis the ratio is about seven cases for each death. Dublin estimates that from five to nine years of age deaths from heart disease are as frequent as from measles and whooping cough and that it causes more deaths during that period than any other disease except diphtheria, while from ten to fourteen years the mortality is heavier than from the four principal diseases of childhood combined. Drolet estimates that in New York City among school girls, heart disease is the leading cause of death, and among school boys also excepting those from accidents, while among youths from fifteen to nineteen years it is the second leading cause of death; also in children

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



of school age heart disease is now three times more frequently the cause of death than pulmonary tuberculosis. But in the United States registration area, heart disease among boys and girls of school age is fourth on the list, indicating that city life is responsible in part at least for the seriousness of these conditions.

Alexander Lambert puts it in a striking manner when he says, "We can measure the certainty with which cardiac disease takes its fatal toll, we can calculate the expectancy with which each human being may fall a victim of it; but it gives us little of practical value to realize that of all who reach the age of ten years, one-fifth will die of heart disease, or that the chances at that age are three times greater of dying from this condition than from tuberculosis. What we daily see and realize only too vividly, we cannot estimate; the amount of sickness, the long years of disability, of diminished effort, of economic loss and curtailed earning powers; the breaking up of homes just beginning to develop their years of happy home life, the cutting off in the prime of life of young mothers, or the death of the father, the family bread-winner, all caused by the same calamity of heart disease."

Turning for a moment to the records of deaths among the members of the medical profession, the annual review given in the March 5th issue of the *Journal of the American Medical Association* we find that for the year 1926, heart disease was the most common cause of deaths of physicians as it was in 1925. In an analysis by Hyman in the same issue of the *Journal*, he finds that in the list studied over one-half of the deaths of doctors was due to cardiovascular disease and that the number might even be increased by the addition of the renal disease cases which probably had associated cardiovascular complications. However his conclusion after studying a group of 100 physicians was that the types of heart disease discovered was not different in any way from those found among other groups in the same community, and that there is no foundation for the belief that there is an entity which could be termed the "doctor's heart".

Reports of mortality rates by great life insurance companies are of interest. Those of the Northwestern Mutual Insurance Co. are available from 1858 to 1917 in four periods, and show that the increase of deaths from organic heart disease from the first to the fourth period was 59 per cent. The Prudential shows an increase in the years 1913 to 1924 of heart disease deaths from 7 to 15 per cent. The Metropolitan in

1923 paid claims for heart deaths of 12 per cent of the total claims, or one death in eight amounting to over seven and one-half million dollars.

#### ETIOLOGY

Excepting congenital types, infections of various kinds are the cause of from 70 to 90 per cent of all of the impaired hearts which demand care, either as ambulant or bed cases. The etiologic agents are the different microorganisms and their toxins or poisons. Rheumatism and syphilis are the two most frequent causes of heart disease. Of the number due to infectious agents, over one-half are the result of acute rheumatic fever, one-fifth to one-sixth in the cities, and one-twentieth in communities like Iowa, to syphilis, and the balance due to infection are the result of focal types from tonsils, sinuses or teeth, and from acute diseases such as influenza, pneumonia, diphtheria and scarlet fever. Thus by far the greater number of heart cases, being due to infections, are preventable if we apply our present knowledge of the transmission of bacterial infection. The rheumatic type is so closely allied to chorea and tonsillitis that the latter should have the same care and consideration as is given acute rheumatic fever.

In January of this year Small reported the isolation of a specific organism found in rheumatic fever which inoculated into rabbits produced acute arthritis similar to acute rheumatic fever, and a proliferative osteoarthritis comparable to a type of chronic arthritis in humans. The lesions produced in the animals did not differ in any essential from those obtained by other investigators who inoculated rabbits with a number of different strains of nonhemolytic streptococci. But the results obtained by treating nine patients with an antiserum prepared by first immunizing a rabbit and then a horse, was prompt improvement in all except two. However these observations have been so recent and applied to so small a number of patients that it may indicate merely a trend in the direction which may ultimately lead to a specific serum or antitoxin for the cure of one of the chief causes of severe heart lesions. There is being made a beginning in the Netherlands, in England and in our own country of organizations, similar to those for the prevention and lessening of cardiac disease and tuberculosis, to combat the disability from acute and chronic rheumatism and the statistics of the disability, distress and economic loss from acute and chronic arthritis may be as startling when compiled as those of tuberculosis and heart disease. The communicability of acute rheu-

matic fever is also being considered and some observers are of the opinion that isolation of patients suffering from it may lower the incidence of the disease.

Another positive cause of heart disease is syphilis. In the groups studied by Wyckoff and Lingg the proportion of cases developing before and after the age of fifty years is about equal, the great majority of cases falling in the decade just above and below this age. The structural changes in the heart and blood vessels probably occur before forty years of age but the patient may not be aware of them until failure begins, so that the latent period between syphilitic infection and the beginning of cardiac symptoms is a long one. On the average about seventeen years elapse between the primary lesions and the symptoms of cardiac involvement. Aortitis, aneurysm, diseased heart muscles and arteriosclerosis constitute the lesions causing the latent symptoms and as a rule the damage is irreparable. Green states that there are over two and one-half million adults in the United States with some grade of syphilitic aortitis. Then there is the condition which we find in the degenerative phases of age, or when hypertension and renal involvement appear, often as a result of long continued chronic toxemia from the slowly progressing infections in teeth, tonsils, sinuses, gall bladders, etc. Overeating, excessive use of tobacco, coffee and especially bad liquor, all hasten the cardiovascular changes which naturally comes to all after middle life, but our appetites will probably continue to govern most of us in the indulgence of our taste for these things, believing "It's a short, short life we live here. So let us indulge while we may."

Arteriosclerotic and hypertensive hearts form about 22 per cent of the estimated cases of heart disease in Iowa. We know some of the things which make us grow old before our time. The application of education, the observance of the rules of hygienic living, less of the hurry and endeavor to outstrip our fellows, a proper amount of rest following a strenuous day's work instead of exchanging our resting periods for the frequent social affairs lasting far into the night, all these prophylactic measures will help to postpone the day of growing old, and the likelihood of heart disease.

#### ECONOMIC ASPECT

We who concern ourselves with the patients under our care; may not consider the social and economic effects of crippling cardiac disease, and the outlook for the individual's improve-

ment or otherwise may be our chief consideration, but to the patient and family, especially if the one ill is the father upon whom the income depends, the physical condition may be even less disturbing than the lack of the usual income, perhaps the actual destitution which may accompany an illness of long duration. Examination of those working in industrial plants and of applicants for life insurance finds two in every hundred handicapped by organic heart disease. Children of pre-school age, school children, young men and industrial workers in New York City all show a relatively large percentage of defects due to the circulatory system according to Halsey. He also estimates the cost for heart disease patients who reach the dispensaries, hospitals and convalescent homes in that city amounts to almost \$800,000 annually, but this does not nearly cover the annual cost of heart disease to the city of New York. If one city in the United States has such an annual expense for the care of cardiac patients the total of all the United States and Canada must be beyond estimate. Carr in a study of clinical patients in the dispensaries of Cook County Hospital and some of the medical schools of Chicago, considers that about one-half of the patients with chronic heart disease with decompensation are of an age when their earning capacity should be at its height. They have a disease which causes partial disability for, on an average, one and one-half years. In one dispensary one-third of the families represented were dependent on charity for their existence and reports from two institutions show the economic loss covering only a fraction of patients with heart disease runs annually into hundreds of thousands of dollars.

The educational work in heart disease may not lessen its incidence for a number of years, but it can improve the working conditions for cardiacs and their economic opportunities. Many patients by change of occupation may continue the productive period of their lives, may live more comfortably with a shorter period of complete disability requiring the time of others for their care and thus lessen greatly the economic loss due to cardiac impairment.

#### REFERENCES

1. Haven Emerson—Heart Disease—Survey Graphic—November, 1924.
2. John Wyckoff and Claire Lingg—Etiology in Organic Heart Disease. American Heart Journal, April, 1924.
3. Don M. Griswold—Survey of Diseases of the Heart in Iowa. 1925 Bulletin.
4. Louis I. Dublin—Statistical Aspects of the Problem of Organic Heart Disease. Metropolitan Life Insurance Co.
5. Merrill M. Myers—Statistical Preliminary Report on 1317 Patients with Heart Disease in Iowa.
6. Godias J. Drolet—Heart Disease the Outstanding Health Problem. Bulletin New York Tuberculosis and Health Assn., March, October, 1926.



7. Alexander Lambert—The Prevention of Heart Disease. The Atlantic Medical Journal, February, 1926.
8. Editorial Journal A. M. A., March 5, 1927.
9. Albert S. Hyman—The Doctors Heart. Journal A. M. A., March 5, 1927.
10. Stewart R. Roberts—Heart Disease and Life. Annals of Clinical Medicine, January, 1926.
11. Editorial—Has the Bacterium of Rheumatic Fever Been Discovered. Journal A. M. A., January 29, 1927.
12. James G. Carr—Economic Phases of Cardiac Disease. The American Heart Journal, October, 1925.
13. George S. Bel—Heart Disease the Chief Cause of Deaths. New Orleans Medical and Surgical Journal, December, 1925.
14. Robert H. Halsey—Early Recognition and Economic Aspects of Heart Disease. American Association for Advancement of Science, December, 1922.

(Symposium: Heart Disease—No. 2)

## THE SYMPTOMS OF HEART DISEASE\*

### *A General Discussion of Pain and Palpitation and a Report of a Study of 1000 Consecutive Patients.*

MERRILL M. MYERS, M.D., Des Moines

It has been said that the well trained general practitioner, who possesses even a modest equipment, can correctly diagnose and successfully treat 80 to 90 per cent of human ailments. This statement undoubtedly applies to the diseases of the heart. Granted that this observation is true, one might then ask this question: Are the well trained practitioners in Iowa correctly diagnosing and successfully treating four-fifths of their cardiac cases? We do not have an answer to this question but my observations lead me to say that there is a considerable number of men in general practice in this state who are maintaining this high average. The next question to ask is—how do they do it? One reason is that they know the chief symptoms of cardiovascular diseases, and also know how to elicit them and interpret them. Subjective and even objective symptoms are relative and variable, therefore, difficult to interpret. The patient's complaint cannot always be taken at its face value. Careful questioning is required in order to elicit the symptoms of heart disease.

It is my purpose first to discuss two of the common symptoms of heart disease, pain and palpitation, and endeavor to show how one should interpret them. The clinical history is of great value. If you will sit by your patient and for a half hour or even fifteen minutes carefully record the presenting symptoms your batting average in correct diagnoses will appreciably increase. You will not only find it easier to determine whether or not he has heart disease, but will also be better able to tell what form is pres-

ent, whether a rheumatic heart, a syphilitic, an hypertensive, an arteriosclerotic or some other form.

## PAIN

The most common symptoms of heart disease are: pain, palpitation, breathlessness and edema. Less common symptoms and signs are: cyanosis, cough, hemoptysis, weakness, pallor, embolic phenomena, and fainting. A simple classification of heart pain is that of Doctor Paul White,<sup>1</sup> as follows:

1. Simple fatigue pain.
  - (a). Chronic hypertension.
  - (b). Aortic stenosis or regurgitation.
  - (c). Mitral stenosis.
  - (d). Pulmonic stenosis — congenital heart disease.
  - (e). Adherent pericarditis.
  - (f). Paroxysmal tachycardia, or paroxysmal auricular fibrillation, or flutter.
  - (g). Permanent auricular fibrillation or flutter with high ventricular rate.
  - (h). Permanent coronary narrowing, due to arteriosclerosis.
2. Nervous heart pain.
3. Paroxysmal heart pain (probably of coronary disease or irritability), the so-called angina pectoris.
4. Pain of coronary thrombosis.
5. Aortic pain, of syphilitic aortitis and aneurysm.
6. Pain of pericarditis.

I shall discuss only the pain of angina pectoris and coronary occlusion. When the patient says he has distress or pain in the chest there are several points to determine about it: Where is the pain; what is its character; does it radiate; what brings on the pain; and what will relieve it? It may be truthfully said that the family doctor can correctly diagnose about eight out of ten cases of angina pectoris. In many instances the diagnosis is made on the symptom of pain alone, for it is known that the physical as well as the x-ray examination, the blood pressure, and the electrocardiogram may be entirely negative.

It is rare to find angina pectoris in patients under forty or forty-five years of age, and most of these are men. The usual site of the pain is substernal, less often precordial, occasionally elsewhere in the chest, or in the neck, or arms. Not all patients have severe agonizing pain, for many of them describe it as a constriction, tightening, heaviness, pressure or heavy ache. Even these sensations, though at times they are barely

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

perceptible to the patient, should suggest the possibility of angina pectoris. The distress may range from mild types on through pain of greater severity to "the agony of the grip of the mailed fist". The practical point about the location of the distress, whatever its intensity, is that the substernal region is a common site. Tenderness on pressure over the site of the pain may occur but is not essential for the diagnosis of heart disease. Radiation is often confusing. In general it may be said that the more severe the chest pain the wider will be its distribution. Certainly it is helpful in diagnosis to note that there is unquestioned radiating pain to the left arm but it must not be forgotten that any pain in the chest, if severe enough, may radiate to the finger tips—even that which occurs in pure cardiac neurosis. One of the most characteristic features of anginal pain is that it is brought on by exertion, excitement, a heavy meal, or by walking against a cold wind. It is seldom noticed when the patient is at rest, in fact many persons with this trouble feel quite well in every way as long as they refrain from physical activity. Having noted that the pain is precipitated by exertion or by some other means, one should then determine just how much exertion is necessary to bring on the pain, for this fact will be very helpful in the prognosis. If pain comes on with very slight exertion the outlook is generally unfavorable. It has already been intimated that rest relieves the pain, and this too is a characteristic worth special note. The patient walks until his pain appears, he stops, and the pain is gone in a few minutes. Relief is obtained from nitroglycerine and amyl nitrite, and one may find the use of these drugs helpful in differentiating true anginal pain from other forms of chest pain. Such terms as pseudo-angina, and false angina are misleading and should not be used. The patient has angina pectoris or he does not have it. It is well known that exact diagnosis of this condition is often difficult and in doubtful cases rather than to diagnose a pseudo-angina a final opinion had better be deferred.

Coronary occlusion is a distinct clinical entity and its symptoms are of such a character that they should be distinguished from those of angina pectoris. The only symptom arising in this condition to be discussed here is the pain. The patient usually has had previous attacks of angina pectoris, although an attack of coronary occlusion may occur in a person who has always been apparently well. In the typical case the location of the pain is precordial or substernal,

though occasionally its maximum intensity is in the upper abdomen, giving rise to the erroneous diagnosis of "acute indigestion". But the most notable feature of the pain is its persistency for hours, perhaps fluctuating in intensity but becoming steadily more severe. The patient first tries nitroglycerine, one, two, three, or more tablets with but slight relief, then he breaks an ampule of amyl nitrite with no more relief, finally he calls the doctor who is forced to give him a quarter grain of morphine, and in a short time another quarter grain, and yet the pain persists and the patient appears as in shock. From this description it is clear that the attack is not one of simple angina pectoris, but coronary occlusion has occurred, with resulting myocardial anemia or infarction. The diagnosis is often simple, yet in referring to the matter, Doctor Henry Christian<sup>2</sup> says that his fourth year medical students are generally able to diagnose it while the older family physician seldom recognizes it.

#### PALPITATION

Palpitation is also a very common complaint in cardiac patients. This term simply means that the patient is conscious of the beating of his heart. The causes are numerous and occur under many conditions. In nervous persons the beating of the heart may be perceptible even though it is contracting with normal force. But palpitation is noted more often as the result of forcible, rapid or irregular beating, and the more attention one pays to the character of the palpitation, the easier it will be to make the diagnosis. For instance, suppose the principle complaint is forcible regular beating; he will usually be found to have a nervous heart or an hypertensive heart. If the complaint is continuous, rapid, regular beating; which the patient says is present hour after hour regardless of what he is doing, the cause usually lies outside the heart, such as an infection like tuberculosis, or in many cases hyperthyroidism. There are several types of cardiac arrhythmia and most of them can be diagnosed simply by feeling the pulse and listening to the heart. Premature beats or extra systoles are probably the greatest cause of palpitation. They may occur without the patient's knowledge but generally are recognized by a sensation of skipping, or missing, or tumbling or flopping of the heart. When the patient says that the arrhythmia occurs at irregular intervals, especially as he relaxes after a heavy meal, or after excessive smoking, or when tired, or soon after going to bed, you may be quite sure that the extra systole is the offender. Seldom does



the patient notice extra systoles when he is about his usual duties, for the heart rate then is faster and this form of arrhythmia tends to disappear as the heart rate increases. This fact will aid in differentiation. Have the patient exercise and note that the irregularity disappears. The important point about premature beats is their clinical insignificance.

Auricular fibrillation is a form of arrhythmia occurring in about 50 per cent of patients with congestive heart failure. It may occur in paroxysms though it is often permanent. The patient is usually conscious of an abnormal beating and feels a continuous trembling or throbbing persisting for months, even years. The detection of auricular fibrillation is an easy matter when one realizes its relative frequency, that such patients usually are ill, that the heart is absolutely irregular in force and in rhythm, and the rate is usually rapid. In addition to the irregular rhythm the physician usually finds other definite evidence of heart disease. The paroxysmal form is characterized by spells of rapid, irregular action usually coming on abruptly and ending abruptly, associated with a full throbbing sensation in the chest, and a certain degree of breathlessness. The attacks may last for a few minutes to several hours, but between attacks the heart may act normally. This paroxysmal type may be found in hearts that seem normal in every other respect. In general auricular fibrillation occurs in three forms of heart disease, namely, the rheumatic, the arteriosclerotic and the thyroid.

No reference will be made to the disorders known as sinus or juvenile arrhythmia, auricular flutter, and alternation of the heart. Two varieties of heart block deserve brief mention. One rather rare form known as so-called "sino-auricular block" in which there is a sudden dropping out of a whole cardiac contraction, may cause a sensation like extra systole. This form of block is probably of little clinical significance. Auriculo-ventricular heart block is not very common, and seldom produces symptoms until the block in the bundle of His is sufficiently great to cause a dropping of ventricular contractions or until complete block occurs. In the latter case with the excessively slow rates, down to twenty or thirty per minute, the patient has faintness or even the typical Stokes-Adams' attacks characterized by lapses of consciousness and epileptiform seizures. Other forms of heart block have no characteristic symptoms.

There is a final form of arrhythmia which should be mentioned as a cause of palpitation,

that is, simple paroxysmal tachycardia. This condition is much more frequent than many physicians realize. It is often found in hearts that appear normal in every other respect. It rarely occurs in children. At examination the heart action is usually normal, but the patient states that for months or even years he has had spells in which he feels a sudden, full, pounding sensation in the chest accompanied by racing heart action. Close questioning is often required to elicit the exact character of the difficulty, but generally the story is that the attack is sudden in onset, that the heart beats rapidly but regularly, that it maintains the rate constantly regardless of what he may do, and that as it stops there are a few heavy beats and it is over in an instant. During the spell he breathes heavily, he may have blue lips or fingers and perspires freely. There are also a number of cerebral manifestations<sup>3</sup> such as dizziness and visual disturbances. In differentiating this form from other tachycardias like paroxysmal auricular fibrillation or flutter or simple sino-auricular tachycardia, it is of value to note the manner in which the spells are stopped by the patient. Often he finds that by deep breathing, or vomiting, or turning in a position to stretch the neck thus producing vagal pressure, he can stop the attacks abruptly. This response proves that the condition is simple paroxysmal tachycardia. These alarming and unpleasant spells may recur for many years without affecting the functional ability of the heart. In discussing the significance of paroxysmal tachycardia with patients it is gratifying to relate the history of a doctor in a nearby town who has had such attacks repeatedly for about forty years but who still has an apparently normal heart and carries on an active country practice.

#### SYMPTOMS IN 1000 CONSECUTIVE PATIENTS

Turning from the general discussion of symptoms I shall report a study of 1000 consecutive patients who have been examined in the last few years because of signs or symptoms referable to the heart. Seven hundred and sixty-two are personal patients, one hundred and ninety-nine are from the cardiac clinic of the Des Moines Health Center, and thirty-nine from the chest clinics held in various parts of the state under the auspices of the Iowa Tuberculosis Association and Iowa Heart Association. In forty-seven instances patients were found to have two etiologic types of heart disease, hence there are 1047 diagnoses for consideration. Heart disease was diagnosed 533 times, 50.9 per cent, and in 514 in-

stances, 49.09 per cent, definite evidence of heart disease was lacking. Many of the patients in the last group had no discoverable disease of any sort, while some did have disease of organs other than the heart. No attempt has been made to compare the symptoms of the patients from the three different sources. The majority of the patients were ambulatory.

Table I gives a detailed study of the occurrence of different symptoms in the various forms of heart disease, and also in the groups without heart disease.

#### THE ETIOLOGIC TYPES OF HEART DISEASE

Table II shows in the order of frequency the types of heart conditions found, the number of each kind and the per cent of each. The classification of cardiac diagnosis is that of Doctor Paul D. White.<sup>4</sup> A recent revision of the classification adopted by the American Heart Association<sup>5</sup> is recommended. Though this paper is not designed to deal with the causes of heart disease it will be noted that the common etiologic types in the order of their frequency are: the rheumatic, the hypertensive, the arteriosclerotic, angina pectoris, the arteriosclerotic and hypertensive, and the syphilitic\*. The criteria for the diagnosis of the types of heart disease are not discussed here. If one adds the per cents in the case of the hypertensive type, the arteriosclerotic type and the arteriosclerotic and hypertensive type (conditions which at times seem closely allied) one secures 19.76 per cent. This is larger than the per cent of rheumatic hearts which is 17.86 per cent.

#### THE SYMPTOM PAIN

Table III shows a summary of the study of pain. This symptom is analyzed according to its site and character. Only the common sites and the important features of the character are noted. Those patients having no pain are also included. Certain points of special interest will be indicated. The precordial location was noted in a higher per cent of those without heart disease than with it, while the per cent with substernal pain was almost twenty-five times greater in the heart disease group than in the other. This emphasizes the great diagnostic importance of substernal pain. Sharp to severe pain occurred in a higher per cent having heart disease than in those whose hearts were not impaired, while the reverse is true of aching pain. As would be expected the pressure constriction type, so com-

monly noted in the substernal region in patients with angina pectoris was associated chiefly with the heart disease. A small per cent without heart disease complained of radiating pain. Attention was directed chiefly toward those pains radiating to the arms, neck, or shoulders. The per cent of persons who had no pain was about equal in both groups. In considering pain as it occurred in all the patients (1047) one notes that about one-third had precordial pain, about one-tenth substernal pain, and a little over one-half were free from pain.

#### THE SYMPTOM PALPITATION

Table IV shows a summary of the study of the symptom palpitation: rapid, forcible, or irregular. It is to be noted that these three forms of palpitation were present in about equal per cents in the group with heart disease. The persons who had no heart disease seemed to have rapid beating more commonly than those with heart disease, however, the complaint of forcible beating should suggest the presence of true heart impairment. It is surprising to note that irregular palpitation occurs in about one-fourth of the patients without heart disease - and in about the same per cent with it. Premature beats were the chief cause of irregular beating in the group whose hearts were considered to be free from disease. About one-third of all the patients (1047) had rapid palpitation, the other forms being less commonly noted. A little over one-third of the entire number had no palpitation.

#### THE SYMPTOMS, DIFFICULT BREATHING, SWELLING, WEAKNESS AND NERVOUSNESS

Table V shows a summary of the study of the symptoms difficult breathing, swelling, weakness and nervousness. Two-thirds of the persons with heart disease had breathlessness on exertion and this same symptom was noted in about one-fourth of the persons with no heart disease. Orthopnea occurred in only 17.4 per cent of the heart disease group, while about one-third had no trouble in breathing. It has been previously stated that the patient's complaint cannot always be taken at its face value. This applies especially to the complaint of swelling of the feet and ankles. There are many causes for this condition. Frequently the physician discovers that the so-called swelling is simply a fat pad near the malleolus, or that the patient is on his feet for hours causing a fullness and soreness, or he may discover that the arches or joints of the feet are at fault. After discounting a good many

\*A study is now being made of the etiology of heart disease in Iowa in which about 1500 patients will be reported.



complaints of swelling it was found that about one-fourth of the heart disease group had such a complaint, and a very small number with hearts free from disease had it due in certain instances to kidney disease or varicose veins. The patients being in the main ambulatory accounts for the relatively small per cent having swelling. Weakness is a very common complaint and has many causes. It was noted in about equal per cents in each group. Nervous manifestations likewise have many causes, but in this study they occurred in a considerably higher per cent of persons without heart trouble than with it. Nearly one-half of all patients (1047) had breathlessness on exertion.

Table VI shows the ten common symptoms in the order of their frequency in each group. It is of interest to compare the positions occupied by the different symptoms in one group as compared to another.

SUMMARY

Attention is directed to the great value of the clinical history in the study of heart diseases, especially the history of the symptoms.

Some of the practical features concerning pain and palpitation are indicated.

A report is given on 1000 consecutive patients examined because of symptoms or signs referable to the heart. Special reference is made to the frequency of occurrence of the following symptoms: pain, palpitation, difficult breathing, swelling, weakness and nervous manifestations.

REFERENCES

1. The Classification of Heart Pain—White, P. D. and Wood, J. E., Jour. A. M. A., vol. lxxxi, No. 7, August 18, 1923.  
2. Cardiac Infarction (Coronary Thrombosis); An Easily Diagnosable Condition—Christian, Henry A., American Heart Journal, vol. i, No. 2, December, 1925.  
3. Barnes, Arlie—The Cerebral Manifestations of Paroxysmal Tachycardia, American Journal Medical Sciences, vol. clxxi, No. 4, April, 1926.  
4. The Classification of Cardiac Diagnosis with Special References to Etiology—White, P. D. and Myers, M. M. American Heart Journal, vol. i, No. 1, October, 1925.  
5. A Nomenclature for Diagnosis—American Heart Journal, vol. ii, No. 2, December, 1926.

Table II  
TYPES OF HEART CONDITIONS  
In 1000 Consecutive Patients in Order of Frequency\*

Type HEART DISEASE	Number	Per cent		
1. Rheumatic				
Inactive .....	149	14.23	Total rheumatics	187
Active .....	38	3.62	Per cent	17.86
2. Hypertensive .....	89	8.50		
3. Arteriosclerotic .....	79	7.54		
4. Angina pectoris .....	54	5.15		
5. Arteriosclerotic and hypertensive.....	39	3.72		
6. Syphilitic .....	24	2.29		
7. Coronary occlusion .....	12	1.14		
8. Congenital .....	10	0.95		
9. Thyroid .....	8	0.76		
10. Sub-acute bacterial endocarditis.....	7	0.66		
11. Rare infectious .....	1	0.09		
12. Uncertain etiology .....	23	2.19		
Total .....	533		Per cent	50.907
NO DEFINITE HEART DISEASE				
13. Potential .....	19	1.81		
14. Nervous .....	57	5.44		
15. Possible heart disease.....	73	6.97		
16. No heart disease found.....	365	34.86		
Total .....	514		Per cent	49.09

\*Duplicates 47

Ta 1  
THE SYMPTOMS OF HEART DISEASE—STUDY OF 1000 CONSECUTIVE PATIENTS  
(47 Deaths)

TYPE OF HEART DISEASE		Females	Males	Average Age	Oldest	Youngest	PAIN							PALPITATION					BREATHING DIFFICULTY				SWELLING				Cyanosis	Cough	Weakness	Fainting	Stokes-Adams	Hemoptysis	Embolic Signs or Paralysis	Nervous Symptoms	Fever		
							SITE			CHARACTER				No Pain	Rapid	Irregular	Paroxysms	Slow	No Palpitation	Exertion	Orthopnea	Nocturnal	No Breathing Difficulty	Feet Ankle	Abdomen	Face										No Swelling	
							Substernal	Precordial	Other	Sharp to Severe	Aching	Pressure or Constriction	Radiation																								Tenderness
ACTIVE RHEUMATIC	F.	19	15	48	4			4					14	11	3			8	7	3		10	4	2		15		4	9			1	1	3			
	M.	19	15	53	5		1	5	1	1	5		13	8	1			5	6	2		12	3	1		15			14				3	8			
	Total Active						1	9	1	1	9		27	19	4			13	13	5		22	7	3		30		4	23			1	4	11			
INACTIVE RHEUMATIC	F.	95	34	69	7	3	26	7	11	20	2	2	61	36	28	3		24	68	20	5	22	15	2		77	5	13	50	4		4	1	25	1		
	M.	54	34	68	8	1	19		5	15	2		33	22	23	2		15	29	5	25	7	1		47		7	18	3		1	1	6	2			
	Total Inactive						4	45	7	16	35	4	94	58	51	5		39	97	25	5	47	22	3		121	5	20	68	7		5	2	31	3		
Total Rheumatic							5	54	8	17	44	4	121	77	55	5		52	110	30	5	69	29	6		154	5	24	91	7		5	3	35	14		
HYPERTENSIVE	F.	50	55	84	33	7	11	2	9	5	2	2	33	16	12			19	29	13	1	17	15	1		33		3	21	1		4	1	12			
	M.	30	55	76	35	6	7	2	4	8	5	3	25	4	3			27	27	9	2	12	15			24		5	15	1				15			
	Total						13	18	4	13	13	7	58	20	15			46	56	22	3	19	30	1		57		8	36	2		3	1	27			
ARTERIOSCLEROTIC	F.	29	65	76	42	2	11	1	4	8	1	3	1	17	9	15	3		10	21	8		7	11	1		15		6	9	2		1		8		
	M.	50	66	87	41	12	12	4	12	8	7	9	28	9	24	1		18	65	13	4	13	16			30		7	11	2		4	6				
	Total						14	23	5	16	16	8	12	45	18	39	4		28	86	21	4	20	27	1		45		13	20	4			5	14		
ANGINA PECTORIS	F.	11	86	73	40	7	6		8	2	2	3	1					7	6	1		4	2			6		1	4					4			
	M.	43	61	78	42	33	15	7	28	10	21	22	2		3			30	22	3	2	20	8			34		3	4	1			1	5			
	Total						40	21	7	36	12	23	25	3				37	28	4	2	24	10			40		4	8	1				1	9		
ARTERIOSCLEROTIC AND HYPERTENSIVE	F.	12	69	86	58	1	2		1	1	1			9	5	5	1		2	11	1		1	6			6		2	6				1	2		
	M.	27	66	76	50	7	7	2	7	6	4			12	2	8	1		10	19	5	2	6	13	1		13		4	9	1			1	5		
	Total						8	9	2	8	7	5		21	7	13	2		12	30	6	2	7	19	1		19		6	15	1			2	7		
SYPHILITIC	F.	6	45	65	37		3	1	3	1				2	2				4	1	1	2	2			4		2							5		
	M.	18	48	83	27	4	4	4	4	6	1	2		8	4			7	11	2	4	5	4			13			6								
	Total						4	7	5	7	7	1	3	10	6			9	15	3	5	7	6			17		2	8								
CORONARY OCCLUSION	F.	1	58				1		1										1	4	1			1													
	M.	11	58	78	43	11	5	1	10		3	4						6	4	1		6	2			9		1							2		
	Total						11	6	1	11		3	4					6	5	1		6	3			9		1								2	
CONGENITAL	F.	4	20	54	1									4					2								4		1						1		
	M.	6	12	21	1									6					5	2			4				6		4		2				1		
	Total													10					7	2			8				10		5		3				1		
THYROID	F.	6	52	64	27		1		1					5	3	4	1		1	3	1		3	2			4			4	1				5		
	M.	2	62	65	59									2	1	1	1		2	2							2										
	Total						1		1					7	4	5	2		1	5	1		3	2			6										
SUBACUTE BACTERIAL ENDOCARDITIS	F.	2	46	56	35									2		1			1	2			2				2								5		
	M.	5	30	43	16		2		1	1				3	2				4	4			3	4			2		1	7			3		6		
	Total						2		1	1				5	2				5	8			5	4			4										
INFECTIOUS TYPES	F.	1					1																				1									1	
	M.	1																									1									1	
	Total																																				
UNCERTAIN ETIOLOGY	F.	12	26	61	5		1			1				11	5	3			3	4		3	1	4	1		11		5	3	1				1		
	M.	11	32	58	5		3				3			8	2	3	1	1	4	4		7		1		10		1	6	1							
	Total										4			19	7	6	1	1	7	8		10		2			21		6	9	2						
POSSIBLE HEART DISEASE	F.	45	43	74	9		1	17	1	3	16			22	23	14	3		9	19	1		20	6	1		28		1	3	19	2			22		
	M.	28	39	74	16			10	1	3	9			15	10	10	3		7	4			20				25			2	7				6		
	Total						1	27	2	6	25			37	33	24	6		16	23	1		40	6	1		53		1	5	26	2				28	
POTENTIAL	F.	5	9	15	5									5					5								5								1		
	M.	14	12	27	5									13	2		1		12	4			14				14								2		
	Total													18	2				17								19									3	
NERVOUS	F.	30	39	55	19		21			5	17		3	9	16	11	3		3	13			17				30			16					27		
	M.	27	31	54	14		17			2	16		1	8	9	13	4		3	5			22				27			6	3				20		
	Total													17	25	24	7		6	18			39				57			1							



c  
o  
a  
h  
st  
p  
f  
V  
n  
c  
li  
tl  
o  
N  
b

tl  
is  
b  
p

---

Table III  
THE SYMPTOM PAIN  
In 1000 Consecutive Patients

Pain	Heart Disease 533		No Heart Disease 514		All Patients 1047	
	Number	Per cent	Number	Per cent	Number	Per cent
SITE:						
Precordial .....	146	27.3	202	39.2	348	33.2
Substernal .....	95	17.8	4	0.7	99	9.4
CHARACTER						
Sharp to Severe .....	110	20.6	62	12.0	172	16.4
Aching .....	105	19.7	141	27.4	246	23.5
Pressure-Constriction .....	51	9.5	1	0.1	52	4.9
Radiation .....	56	10.5	14	2.7	70	6.8
NO PAIN .....	296	55.5	288	56.0	584	55.7

Table IV  
THE SYMPTOM PALPITATION  
In 1000 Consecutive Patients

PALPITATION	Heart Disease 533		No Heart Disease 514		All Patients 1047	
	Number	per cent	Number	Per cent	Number	Per cent
Rapid .....	145	27.2	207	40.2	352	33.6
Forcible .....	144	27.0	92	17.8	236	22.5
Irregular .....	147	27.5	129	25.0	276	26.3
NO PALPITATION .....	215	40.3	155	30.1	370	35.3

Table V  
OTHER SYMPTOMS  
In 1000 Consecutive Patients

	Heart Disease 533		No Heart Disease 514		All Patients 1047	
	Number	Per cent	Number	Per cent	Number	Per cent
BREATHING						
Breathless on Exertion .....	355	66.6	141	27.4	496	47.3
Orthopnea .....	93	17.4	2	0.3	95	9.0
No Breathlessness .....	190	35.4	361	70.2	551	52.6
SWELLING: Feet, Ankles .....	132	24.8	19	3.6	151	14.4
NO SWELLING .....	381	71.4	472	91.8	853	81.4
WEAKNESS .....	204	38.0	189	36.7	393	37.5
NERVOUS .....	106	19.8	226	43.9	332	31.7

Table VI  
COMMON SYMPTOMS OF HEART DISEASE IN ORDER OF FREQUENCY  
In 1000 Consecutive Patients

Heart Disease 533	No Heart Disease 514	All Patients 1047
1. Breathlessness on exertion	Nervous symptoms	Breathlessness on exertion
2. Weakness	Rapid palpitation	Weakness
3. Irregular palpitation	Precordial pain	Rapid palpitation
4. Precordial pain	Weakness	Precordial pain
5. Rapid palpitation	Aching pain	Nervous symptoms
	Breathlessness on exertion	
6. Forcible palpitation	Irregular palpitation	Irregular palpitation
7. Swelling feet and ankles	Forcible palpitation	Aching pain
8. Sharp to severe pain	Sharp to severe pain	Forcible palpitation
9. Nervous symptoms	Swelling feet and ankles	Sharp to severe pain
10. Aching pain	Radiation	Swelling feet and ankles



(Symposium: Heart Disease—No. 3)

## THE TREATMENT OF CARDIAC FAILURE\*

VERNE C. GRABER, M.D., Iowa City

The term cardiac failure implies fundamentally insufficiency of the cardiac muscle which ultimately leads to a reduction in the reserve force of the heart. For purposes of discussion, the disturbance may be rather adequately divided into two groups: first, early cardiac failure, and second, advanced cardiac failure.

### EARLY CARDIAC FAILURE

This group with mild dyspnea and a little edema unfortunately does not come to us as frequently as they should. Rest, both mental and physical, leading to a reduction of the number of cardiac beats and ultimate rest of the muscle may, without the use of drugs, suffice to stabilize the myocardium and practically normal function will result provided the patient takes an easily assimilated diet with effective elimination and exercises reasonable after care regarding his mode of living. Digitalis, however, may be required, especially in those who have rapid auricular fibrillation—fifteen minim doses thrice daily will usually bring the cardiac rate to about eighty, and the behavior of the heart is the indication to its subsequent use.

### ADVANCED CARDIAC FAILURE

In this group the reserve force has been reduced to the minimum. The marked edema and often general anasarca are indications that heroic treatment for the insufficient cardiac muscle is imperative. In our opinion the following measures should be adapted:

#### REST

Even in the advanced type improvement in cardiac function has been attributed to various measures when in reality the good results may be directly traceable to rest. Some good clinicians even go so far as to say that rest occupies fifty per cent of the treatment.

Patients with advanced cardiac failure require a comfortable bed which should be equipped with a head rest. In a private home a rather satisfactory head rest may be obtained as Christian suggests, by turning a chair over and placing a blanket on it. The patient may place his feet against some object at the foot of the bed to avoid constant "slipping down" which makes

breathing more difficult. Some patients, when extremely dyspnoeic, prefer to sit upright. This is not without merit as this position tends to lower the diaphragm, aids in removing torsion on the great vessels and permits a more effective action of the accessory muscles of inspiration. The patient should use the bed pan unless the procedure is unusually difficult. It is then advisable, in order to reduce excess straining, to lift them to a bedside commode.

Cardiacs are almost invariably restless at nights. Morphine sulphate, grains  $\frac{1}{4}$ , repeated in four hours may suffice. It is well to remember, however, that many of these patients have a long siege and the drug should not be used indiscriminately. Patients who are restless during the day may be quieted by the use of luminal, grains  $1\frac{1}{2}$ , after meals. Cough, which so frequently disturbs rest may be controlled somewhat by  $\frac{1}{2}$  grain doses of codein by mouth. Cough usually becomes less distressing when congestion disappears. Nitroglycerin may be used in patients with hypertension. It may be administered by placing a 1/100 grain tablet under the tongue every two hours while the patient is awake. Erythrol tetra nitrite may be given but its action is more lasting and it cannot, therefore be used so frequently. A moderate decrease in blood pressure may be encouraged but long continued use of these drugs should be advised against as their action may favor the accumulation of effusions.

#### DIET

Apart from poor function of the digestive and frequently the renal system, cardiac failure exerts a deleterious influence upon the general body functions. The diet must contain enough calories to supply sufficient energy and yet be easily assimilated. In cases with edema the diet should be salt free and the fluids should be restricted. It is a well known fact that carbohydrates in excess, produce flatulency and intestinal disturbance but it is also known that some patients do well on carbohydrates in moderate quantities. With this in view we are using a diet in the University Hospital whereby the patient receives 2100 calories. It consists of 44 grams of protein, 110 grams of fat and 222 grams of carbohydrates. This is supplied in the form of fruit juices, vegetable purees, milk, cream, butter, eggs and cooked cereals; the carbohydrates being increased by the addition of sugars such as dextri maltose, glucose and lactose. Excessive fermentation and gastric retention are avoided by giving frequent small feed-

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

ings—when the edema is marked the fluids are limited to 1500 c.c. daily and salt is reduced to the minimum. The fruit and vegetable content in this diet will usually produce one or two bowel movements daily. With improvement in the patient's condition the diet may be increased as function seems to indicate.

In a few very severe cases the Karrel, which is essentially a starvation diet, consisting of 200 c.c. of milk at 8-12-4-8 may be of some value, but it cannot be continued over long periods as it may impair body function.

#### DEPLETION OF EXCESS BODY FLUIDS

Although diet and digitalis have major roles in relieving the embarrassed circulation, some cases having extreme dyspnea, cyanosis and anasarca require venesection and the removal of fluid from the chest and the abdomen. Before doing a venesection one should know that the patient is not anemic. Morphine sulphate, grains  $\frac{1}{4}$  may be given to stabilize him and 500 c.c. is withdrawn from the median basilic vein. We have found that a rather sharp needle with the aid of a constrictor serves for this very well. A venesection permits a better exchange of venous and arterial blood promotes a better flow of blood through the kidneys and relieves the load of the damaged myocardium. The hydrothorax which is usually on the right side, and the ascites may cause considerable embarrassment by pressure alone. Aspiration of the chest and abdominal paracentesis may then be carried out. In all cases novocain should be used in order to reduce the distress of the procedure. It is also well to explain that aspiration of the chest is attended by some risk.

Some men feel that incisions in the legs, permitting the introduction of Southey's tubes in order to decrease edema is not a good practice because it favors infection. We have seen infection following the tapping of an edematous scrotum.

#### CATHARTICS

Cardiacs do not require severe long continued cathartics because it disturbs rest and is debilitating. When there is evidence of poor digitalis absorption or poorly functioning renal tissue, magnesium sulphate for a time in the mornings may reduce intestinal edema and promote diuresis.

#### DRUGS

Digitalis seems to be the most reliable drug, but its use should be restricted to cardiac failure. Murmurs, extra systoles, hypertension and like disturbances per se are not indications for its

administration. The fresh tincture seems to be the most adaptable and it is cheap and easily administered. Digitalis probably does not deteriorate but may be less readily absorbed when old. It should be given in a glass graduated for minim doses, as the usual "drop method" is inaccurate. Forty to fifty drops corresponds to about fifteen to twenty minims. The size of the dose is determined by a study of the individual case and it is of prime importance to first ascertain whether or not he has been previously receiving digitalis and is thus partially digitalized.

In general, adult cardiacs in extremis require large doses. It is safe to give one dram of the tincture at once, repeat in eight hours and follow with twenty minim doses three times a day. In the moderately advanced case it is first well to make the patient comfortable, resort to venesection and depletion of body fluids and follow with 15 to 20 minims of digitalis three times a day. There are three important points regarding its beneficial action:

(1) Those cases having auricular fibrillation show a gradual diminution in the cardiac rate and a better cardiac tone with resulting decrease in edema and signs of improved function.

(2) In those cases not having auricular fibrillation, while the cardiac rate is not made slower, do show a better muscle tone.

(3) The promotion of diuresis in cardiacs with edema. This is brought about by improvement of the circulation through increasing the muscle tone or less probable to a diuretic action of the kidney or a combination of both. In cases where kidney function is poor there may be no increase in diuresis.

In those cases where auricular fibrillation is present one must take the cardiac rate at the apex daily. When it is reduced to 70 or 80, which is the optimal cardiac rate regardless of the pressure or absence of edema, the dose should then be halved or if necessary be withdrawn for a time. One soon learns to know each patient's individual response to the drug. The dramatic action of digitalis in patients in whom auricular fibrillation is present is frequently overstressed. It is not so common as one is led to think that the drug induces the resumption of regular rhythm. There are, however, some hearts with fibrillating auricles in which digitalis produces a complete block. As a result the ventricles beat regularly and the pulse is regular. Occasionally digitalis may change auricular flutter to auricular fibrillation. Continued use may then result in regular action.



In some cases where fluids are removed slowly, theocin, the synthetic preparation of theophyllin may be used as an adjunct to digitalis. Because of its irritating action on the gastro-intestinal tract, it must be discontinued in a relatively short time. We have had good results especially in arteriosclerotics with euphyllin, a very soluble theophyllin preparation which may be given over long periods without producing gastro-intestinal disturbances. Theobromin and theophyllin likewise have a definite dilating action on the coronary arteries which may account for their favorable effect in cardiac failure associated with arteriosclerosis even though edema is not present. Novasural, because of its toxicity is not used until other measures fail, but it is a useful drug in advanced failure with edema. We have recently had in the University Hospital a patient in whom, after other measures failed, novasural induced a practically complete recovery. In the administration of the drug it is advisable to start with small intravenous doses,  $\frac{1}{4}$  to  $\frac{1}{2}$  c. c. to prevent an intense gastro-enteritis. It may be increased to 2 c.c. Small doses may produce a marked diuretic effect. It is rarely necessary to give over 1 c.c. twice a week. Occasionally, as Keith and his coworkers noted, novasural alone does not produce a diuresis. When ammonium chloride, grains XXX thrice daily is added a marked increase in urinary output may occur.

#### DIGITALIS IN CARDIACS THAT VOMIT EXCESSIVELY

When one has made sure that vomiting is a symptom of cardiac failure it is well to withdraw the drug for a day or two. In some patients its use may then be resumed without difficulty. If this does not meet with success one may resort to rectal use of the drug. It is well to give 1 or 2 drams by the high rectal tube. We have seen no unusual results brought about by changing preparations in vomiting cardiacs. Frequently digitalis is stopped and strophanthus is given to these patients. The cessation of vomiting in these patients seems to be due largely to the fact that strophanthus is more inert. It is less readily absorbed. If one prefers to give an intravenous solution of digitalis it may be given in the form of the tincture well diluted. Great care must be taken to prevent a toxic action especially if the patient has previously been taking the drug by mouth.

#### TOO MUCH DIGITALIS

The most outstanding and practical signs are nausea, vomiting and occasionally diarrhoea.

One may also palpate at the wrist the so-called bigeminal pulse which is due to regular recurring extra systoles. This type of extra systole may, as a rule, be safely assumed to be a digitalis effect, while irregularly recurring extra systoles are regarded lightly except in those cases where they make a sudden appearance after continued use of digitalis. After prolonged use of the drug, partial or complete heart block may occur. It is also well to remember at this point that prolonged use of digitalis may decrease cardiac efficiency. It is significant, however, that most cardiacs improve long before the drug has a chance to exert this effect.

Quinidine should never be used in advanced cardiac failure.

#### CONVALESCENCE AND AFTER TREATMENT

Under the measures of rest, diet and digitalis, many cardiacs, provided myocardial changes have been found to be amenable to treatment, gradually resume a stage of practically normal cardiac function. This is most frequently seen in patients who have had their first "break" and it is not fair to imply that all cardiacs respond in such a manner because there comes a time in far advanced cases when no known measures will be met with success. One may say, however, that restoration of function is evidenced by the disappearance of symptoms with gradual loss of edema and excess body fluids. Our experience has led us to feel that once a patient has an enlarged heart, it remains so except for some transient change which may be attributed to a decrease in the degree of dilatation which results when the excess strain has been reduced.

The feeling is prevalent among clinicians that a patient with cardiac failure of such advanced degree as to require him to go to bed, should remain there, not until he is merely free from symptoms, but until all traces of edema have disappeared. This may require one to six months or longer. Rather marked edema may lurk about the sacrum for long periods. There are some cases that have had two or more breaks and recovery is so slow or improbable that it may appear to be good judgment to get them out of bed for short periods. As a rule, regardless of the type of case when it seems reasonable to gradually get the patient up and about, it is well to have him sit on the edge of the bed for a short time in order to note unfavorable symptoms and changes in the cardiac rate. One may expect to find slight increases in rate and this should not be a cause for alarm. He may then be helped

to a chair by the bed side and be permitted to sit here for thirty minutes in the forenoon. The next day he may be in his chair thirty minutes in the forenoon and thirty minutes in the afternoon. This procedure may be gradually increased until he is up four hours a day. If he reacts favorably he may then be allowed to take a dozen steps about the bed side. This is increased moderately until he remains out of bed for the entire day. He may then go for short walks but should be cautioned regarding undue exertion. The efficacy of this management lies in the fact that one may keep the patient's cardiac rate at about 80 which, as has been previously stated, seems to be the optimum rate for good cardiac function, especially in those patients in whom auricular fibrillation is present. One must always create interest in the patient's mind and explain in detail the reasons for convalescent management. Under these conditions he is much more co-operative and cheerful. No one appreciates co-operation more than the physician, because he is well aware that each patient must be treated as an individual case.

After having stabilized the patient's cardiovascular system, small doses of digitalis may be continued. Twenty minims at bed time is easily eliminated and is frequently sufficient to keep the cardiac rate at the desired level. In some patients it may be necessary to moderately increase or decrease this dosage, but they soon learn to take the proper amount to maintain reasonably normal function.

Judgment alone tells the physician and the patient that the occupation must be in accordance with the ability of his cardiac muscle to do work. Obviously, a man digging ditches will throw infinitely more strain upon his cardiac muscle than will the man who sits at a desk. In reality, the importance of resting the heart in convalescent management is the issue. The occupation must be in accordance with the requirements because the ultimate outlook depends chiefly upon giving the heart less work than it is actually capable of doing.

During this period the diet must be sufficient to maintain body activity. If the patient is obese the carbohydrates should be reduced and the general caloric value of the diet reduced until he approaches the proper weight for his age, years and restricted activities. Those patients having previously shown considerable edema should not have a fluid intake in excess of 2000 c.c. in the twenty-four hours.

During the later convalescent period when the patient is free from symptoms the time for the

removal of definite foci is opportune. Infections may be continuously impairing the activity of a damaged heart. It is better to make detailed explanations to a cardiac than it is to frighten him. The nature of symptoms and the reasons for their appearance will be instrumental in bringing about intelligent co-operation. The patient should therefore be instructed to visit his physician frequently for examination of his cardiovascular-renal system.

Two chief features are indicative of a return of cardiac failure. They are: breathlessness on exertion and edema of the ankles. The patient readily notes the former while with a little observation on his part he soon notes the returning edema by means of the imprints of his shoes and laces in the tissue about his ankles.

#### Discussion on Symposium "Heart Disease"

**Dr. Paul W. Van Metre**, Rockwell City (opening the discussion of Doctor Gaumer's paper)—When one enters the lists of those competing against this preventable disease, he feels the pleasurable sensation of attempting something worth while, and that little more than a plume in his hat is needed to make him a crusader. He becomes convinced that the organized effort of the profession in combating heart disease may lead to wonderful improvement in a short time, as it has in tuberculosis. Dublin, the able statistician of the Metropolitan Life Insurance Company, states that we shall always be troubled with our heart figures until there are more autopsies and the standard of medical practice generally has been raised. Dublin is a layman, an outsider, and since he is attacking us we advise him to take up his cudgel for more rural hospitals. If we had more hospitals we would have more autopsies, as undertaking parlors are not ideal for the purpose. As the essayist has said, the idea that there is 2 per cent of morbidity is generally held. He quoted World War statistics showing that 11.5 per cent of all rejections of applicants was on account of cardiac defects, and 15 per cent included those rejected on account of circulatory defects. He states that 1926 shows an increase, as has every year since 1921, in the incidence of heart disease. It is now 136 per 100,000, its nearest competitor being influenza and pneumonia, with a combined rate of 105 per 100,000. Death is generally due to gradual failure of heart muscle, 5 to 1 over all other types of heart death, and for every death there are 5 to 9 cases of damaged living hearts. It is said that there are more than 140,000 school children in New York, or 1.1 per cent, with heart disease. Osler named pneumonia captain of the men of death, but heart disease is now "major general", and the worst of it is that, as the weather man says, there is no relief in sight because the degenerative diseases are on the increase due to the complexities of civilization. The decrease of com-



municable diseases, which we know is marked, will throw over into the later ages of life large numbers of people to be subject to attack by heart disease. The fact of its great insidiousness should be stressed more than it is. The incidence in cities is in a seven to one ratio over that in the country. Iowa should advertise that instead of farm woes. Though many, many consider rheumatic states the commonest cause, Farr of Minneapolis states that hypertensive states are etiologically responsible for 70 to 90 per cent of heart disease. In his opinion, removal of focal infection has no favorable effect upon the heart muscle. Robey of Boston stresses rheumatism and infections as the cause in later life. Dublin gives arteriosclerosis as the cause in 40 per cent, agreeing with Cabot, and both give lues as being responsible for 10 to 12 per cent of cases. Many hold the idea of Matthewson of Pennsylvania that the tonsils alone are the cause of more deaths than every other cause of heart disease. The economic aspect depends on the point of view, because some believe in the survival only of the fittest and would let the others die. But the proposition of the survival of the fittest does not answer the question for the reason that the afflicted are generally in the prime of life, and also because of the fact that the situation brings about a real economic burden to the state, for, even though the heart be compensated, its owner's earning capacity is impaired. Halsey estimated production in U. S. A. is impaired \$100,000,000 by heart disease. Another factor is the long duration of the illness, averaging ten years, emphasizing the point made by Doctor Gaumer, seventeen years of existing luetic infection before making itself known in a damaged heart. If these cases are hospitalized, they are hospitalized not once but many times, because neither the profession nor the public realizes the long protracted period necessary for recovery to take place. It is said that for every nine dollars paid for education in the United States, ten cents is spent for health.

**Dr. Frank M. Fuller**, Keokuk (opening the discussion of Doctor Myers' paper)—I was very much interested in the statistics presented by Doctor Myers, for he has given to us the results of continuous, persistent study of diseases of the heart, and I think the most appropriate comment I can make on this paper is that it has suggested to us the value of constant effort along a particular line of work in order to secure definite information. Doctor Myers' figures give us in a concrete way those factors which we can reflect upon rather than discuss at this particular time. The fact that so large a percentage of these cases come from rheumatic infections is a suggestion to us. Those who have seen very much work in diseases of children realize that among children we are finding the potential sufferers from heart diseases. Most of us think of heart disease as a condition of adult life, and most of our patients think of it as a part of the strenuous activity of adult life. We are forgetting to educate our people as we see these little ones

who come early in life with those conditions which produce heart disease—we are forgetting too often to impress upon them the fact that we know that the primary infection is that thing which produces heart disease, not in later life, but in the life of childhood. We forget the fact that rheumatism is a general term. I am not speaking of the ordinary arthritis or ordinary joint pains that people generally have from local focal infections, but of these particular types of rheumatism which we see in childhood associated with tender joints and fever. We see children who are brought in casually with chorea. We pass those cases by too lightly. We think of chorea as being an entity in itself, instead of being a potential condition that has to do with heart disease later in life, and I believe that when we begin with our children we will have better results. It is hard for old folk to grow—"the tree grows as it is inclined"—and we grow into defects of posture and manner of thinking and speech, and it is difficult to change. But it is easy many times to train the child, and the mother in the care of the child, where you cannot do it in the adolescent or the adult. In these days the adolescent can scarcely be trained under any circumstances, and the young adult is too busy to think of his condition and has confidence that he will be able to overcome all difficulties, therefore he does not pay much attention to the subject. So, down deep underneath the surface of the figures presented, which seem to be highly statistical, there lies a lesson for us that I think is very definite and positive, and that is that back of all these figures may be found the early etiological factor which we are too prone oftentimes to overlook—the rheumatic infections, the tonsillar infections, the other infections that may develop. And out of those will grow these heart diseases that come on in young life, more common in young adult life, and that sweep away, as has been said, a larger proportion of lives than any other disease that we have.

**Dr. John H. Peck**, Des Moines (opening the discussion of Doctor Graber's paper)—I am convinced that the time has arrived for a very sharp revision in our methods of treating heart disease. Cardiac cases at the present time are over-treated. We should learn a lesson from our experience with the common disease, tuberculosis. Many years ago nearly every drug in the Pharmacopeia was used for the treatment of tuberculosis. Gradually these have been dropped one by one, sometimes a dozen at a time, until now we use no drugs in the treatment of tuberculosis, that is, for the tuberculosis itself. We all now realize that rest is 90 per cent or more in the treatment of tuberculosis, just as rest is 90 per cent of the treatment of a fractured leg. So let us apply this knowledge, which came so slowly, to the treatment of cardiac disease. Not so long ago we were using strychnia for heart disease. We were told that this drug was not of value for the heart disease itself, so it was discontinued; and some one said that caffeine was not of value in these cases

and so we dropped that, then camphor, and so on throughout the list. Therefore let us understand fully the parallelism between the treatment of heart disease and of tuberculosis—that the earlier the diagnosis the more effective the treatment; that the treatment is essentially rest. That the rest is not to be for a day or two or a week or two or a month or two, but the long period of rest which we have learned throughout the years is necessary to arrest the case of pulmonary tuberculosis. After the long period of rest it is just as important to have a long period of graduated exercise before the patient is returned to his usual work. That is the treatment of cardiac disease today.

**Dr. A. D. Woods, State Center**—The clarion call of medicine and surgery today is the preservation of function. The first great era of the surgical epoch was anatomic, the second era of the surgical epoch was pathologic, and there is coming today, it is on the horizon, the third era which spells preservation of function. In the early day, before the introduction of anesthesia, operations were limited to the bladder, to amputations, and to the attack of tumors. The surgeon at that time had to work expeditiously, consequently he had to know anatomy. In operating for stone in the bladder he had to get in and out again with rapidity because the patient could not stand the pain. Following this period came the advent of anesthesia in '46, after which the surgeon had more time in which to observe these things. We think of the second period of surgery as the pathologic era because the effort of the surgeon at that time was to remove the pathologic condition. And recently the effort is tending towards the recognition of any disease process sufficiently early so that the attack may be made with the maximum amount of preservation of function. The subject of heart disease is analogous. I like to think of the great heart epoch as divided into three periods beginning in 1628 when the immortal Harvey discovered the circulation of the blood. From that time to 1745 was the anatomic era of the heart. Practically nothing was known about the heart and circulation except the anatomy. Three hundred years ago it was believed that the arteries contained air and that the heart was the seat of the soul. In 1745 an event of the greatest magnitude occurred. The Dean of Brazenose College, Oxford, lay sick of the dropsy, and the story goes that he called in many of the best medical practitioners of the day and they did him no good. Some members of his household, presumably the female members, urged him to try a tea which was brewed by an old woman of Shropshire, which he did, and a magical thing occurred; the dropsy disappeared and the old dean recovered. One of the friends of the dean was Dr. William Withering, and I believe that there never was a man who had a harder head than Doctor Withering. The story goes that he went to this old woman and induced her to give him this recipe, in which he found that the principal thing was the foxglove, with the result

that we have today our digitalis. The period intervening between this time and about the beginning of the twentieth century I like to think of as the era of the pathology of the heart, when, beginning about 1900, for the first time the real function of the heart was worked out. So if the symposium this afternoon teaches anything it is this: That if we are to accomplish the greatest good in the treatment of these cases we must early recognize the condition, before pathologic changes take place, and with the invention of the polygraph and the electrocardiograph and these finer methods of precision the third era, the physiologic era, has come in. As I see it, the indication now is to early recognize these conditions so that they may be treated with the maximum preservation of function.

**Dr. O. C. Morrison, Carroll**—If each of the members of this Society were asked by one of 500 men—"What should I do in order to remain well during the period of from twenty to seventy years—how am I going to get the most out of my body during these years?"—I wonder what answer you would give. I wonder if you would tell him to fill himself with tobacco smoke, as you men are now doing. There are five things that would enter into the answer to that question. In the great industrial world today that is the question being asked—"how can we arrive at the seventieth year in perfect physical condition?" I might say that I have just finished the examination of 500 men, with the following findings: Heart disease is not a question of cure. I think we ought to be long past that stage and realize that 85 per cent of our time should be spent in prevention and not cure. What is the need of raising up a nation of invalids with hearts that will not function, if it can be prevented? What is the need of putting in all our time in the correction of the thing that has already happened? In the examination of this group it was found that 50 per cent had systolic pressure of over 140 m.m., 15 per cent over 160, 5 per cent over 190, 3 per cent over 210, and these men were absolutely as sound as a dollar so far as outward symptoms were concerned. They were doing hard labor. We were not examining men in hospitals, but men doing the hardest form of physical work. Of the five things that stand out, the degree of blood pressure is an important factor. A boy of seventeen started to smoke excessively and his systolic pressure began to climb with it. A year ago he smoked a package and a half of cigarettes a day. No boy can do that and remain normal. If that boy's diastolic begins to crawl up after the systolic and is manifest on the chart, that much pathology will remain with him throughout life. If he is an excessive smoker and is over-weight, which is one of the things that will increase blood pressure with all of the others, his pressure will continue to rise. I wish we might get into the minds of the physician and men of the state of Iowa that we certainly ought to arrive at a stage of mental development where we get out of the field of instinct and govern our bodies with



intelligence. We see a crude illustration of this fact in the case of men who come in with signs of heart trouble, and I illustrate to them the load that the heart has to carry every day, thus: Every systole of your heart pumps one pint of blood; 72 times a minute, 10 gallons; every hour, 660 gallons; every day, 15,000 gallons; every year, 5,200,000 gallons; pumped with that little heart of yours. If we compare the heart with the ordinary pump, and the fluid of the body, which I estimate to be  $1\frac{1}{2}$  gallons, with water which is pumped through the radiators, each systole will move  $1\frac{1}{2}$  gallons, every day 179,000 gallons, and every year 62,000,000 gallons. If you were to fill the Leviathan, the largest freighter afloat, with this blood, it would sink it many times before those seventy years have been completed. We speak of rest. The most vital question is simply unloading the work, doing away with those factors that are injurious to the heart, thus giving it a chance to function by taking off excessive load. Unload excessive diet, worry, physical energy, toxic stimuli, etc. Have a little respect for that little engine nature endowed you with and you will not have to go to the repair shop so often.

**Dr. Tom B. Throckmorton**, Des Moines—I arise for this reason: I do not want my friend and confrere, Doctor Peck, to be misunderstood and have you carry out from this assembly the thought that no drugs are used in the treatment of tuberculosis. Doctor Peck meant that drugs were not used for their germicidal effect in the treatment of tuberculosis. Those who went with the Tri-State Medical Society on its European tour will recall that our friend, Dr. Woods Hutchinson, at a banquet session, gave an address, and he was later quoted by the press as saying "that if the drugs of the Pharmacopeia were dumped into the ocean it would be far better for mankind, but bad for the fishes"; and a marked copy of the Christian Science Monitor was sent to my desk with this press dispatch conspicuously written up. Concerning tobacco, I was taught as a boy that it was dangerous to use tobacco. I did not attempt to use it until I was almost forty years of age. But Doctor Morrison has overstretched his remarks a little, I feel, in being unduly alarmed about the possibility of tobacco producing an organic heart lesion, and shortening life. All I can say is that my grandfather was a Kentuckian, he was born, I veritably believe, with a quid in his mouth, he used the strongest tobacco he could buy, and died in his eighty-eighth year.

**Dr. Walter E. Scott**, Adel—What Doctor Morrison said about tobacco probably would be equally true of coffee. As to the etiology of heart disease, I believe that in many cases hypertension is inherited. Of course, infection causes many cases. The mitral insufficiencies that we have are generally due to infection. Denatured living is largely responsible for some cases. In my opinion, diet is of a great deal more importance in the etiology of heart disease than either tobacco or coffee. The

matter of diet is extremely important. Whole-grain wheat contains the sixteen elements that the body normally contains, while white flour contains only four of these elements. We take much out of sugar in the refining process. We polish our rice and take away the most important element, the vitamins. We eat too much meat and eggs and do not eat enough raw fruit and vegetables. There are a great many causes for heart disease. As stated, many cases are inherited, a good many others are due to infection, and many to denatured living. There is something peculiar about the symptoms of heart disease in different cases. One of the first questions I ask the patient is—Do you have dyspnea? Do you use one pillow, or do you have to have two or three pillows in order to sleep well? If he has dyspnea with head low, I know we have one form of heart disease. Or he may say that he does not have to use any pillow at all. There again is a different kind. Each kind has different symptoms. In regard to treatment, one can say the same thing. There is no one treatment for heart disease. Many times it is best to treat the patient that has the disease rather than the disease that has the patient, of course giving sufficient attention to digitalis and other means of stimulating the heart. But one of the best things in the treatment of heart disease is to get back to a natural diet and to clear the intestinal tract of toxins and such things as cause the growth of putrefactive bacteria therein. That is not only treatment, but a preventive measure as well. Therefore we should not try to generalize the treatment of heart disease. We should treat every case individually and try to normalize every patient. Rest, of course, in some patients is the first consideration. There is much food for thought in this symposium.

**Dr. Nicholas Schilling**, New Hampton—I do not wish to speak to the question of tobacco on the ground that it does any particular harm, but there are so many doctors and others who enjoy it immensely that this is one reason why I am opposed to it.

**Dr. H. B. Young**, Burlington—It is one of the misfortunes of the spoken language that a great many words in common usage do not always convey the exact meaning that is expected of them. Doctor Throckmorton has arisen in defense of Doctor Peck, and I also want to rise in his defense. He speaks of rest as the essential treatment of tuberculosis and heart disease. Provided he means by rest what I mean by the term, I agree with him; if he does not mean what I mean, I do not believe it is competent. Physical rest is essential, but if you do not find contentment of mind with it you do not get rest. This fact is well illustrated in the case of a woman patient who had all that money could afford in the way of treatment; she had rest galore, she had pneumothorax, she had tuberculin injections, but she did not have contentment of mind; so we failed. If you mean mental

as well as physical rest, amen; otherwise rest does not mean what you say it does.

**Dr. Geo. W. Koch**, Sioux City—There has been much discussion as to whether or not tobacco, over-weight, and other factors, have an influence in the production of heart disease, and I would ask Doctor Myers just how frequent this condition is.

**Dr. Myers** (closing): The diagnosis of "tobacco heart" was not made in this series of patients. Occasionally in an excessive smoker, an arrhythmia develops, usually due to premature beats, but one is not justified in making the diagnosis of "tobacco heart" on this evidence alone. I do not recall ever having examined a person in whom I felt that the heart was permanently damaged by tobacco. From this study reported today one learns what the chief symptoms are in those who consult the physician because of cardiac complaints. Particular attention is given to pain and other forms of chest discomfort. Emphasis should be laid again on the diagnostic value of substernal distress and pain, as found in angina pectoris. When the man over fifty years of age tells you that while walking he feels a heavy or gripping sensation in the substernal region, consider first the possibility of angina pectoris. Much attention is being given at this time to the etiology of cardiac diseases, and physicians are now making etiologic diagnosis in this branch of medicine. A careful consideration of the symptoms aids materially in the determination of the causes of heart diseases.

## OBSERVATIONS ON INFECTIONS OF THE MAXILLARY SINUSES\*

JESSE B. NAFTZER, M.D., Sioux City

The anatomy of the maxillary sinus will not be discussed except to call attention to the anatomical variations in size and location of the sinus and the similarity of the mucous membrane of the nose and sinus. Between the floor of the antrum and the alveolus is a layer of spongy bone varying in thickness. The floor of the antrum invades this spongy bone during development. The amount of resorption of this spongy bone governs the enlargement of the antrum downward and also explains the variation in thickness of the alveolar process. Great variations in the size of the antrum may occur which will influence considerably the diagnosis and treatment of infections of the antrum. The mucous membrane of the nose and accessory sinuses is directly connected and has the same blood supply. The mucous membrane of the antrum differs

from the nasal mucous membrane in that it has a very thin basement membrane and an absence of glands except around the ostia. The principal blood supply of the antrum is the posterior nasal artery which anastomoses with the blood-vessels from the infraorbital artery and the posterior superior alveolar arteries. Gurlitz<sup>1</sup> describes the veins of the antrum. In 58 per cent of his cases he found a large plexus of veins either on the orbital or nasal wall of the antral mucosa.

### INFECTIONS OF THE ANTRUM

In this locality especially during the winter and spring months infections of the nasal accessory sinuses present a great problem to the rhinologist. Our sudden temperature changes and rather severe respiratory infections; colds and exanthema are important factors. The mode of infection of the maxillary antrum has been and is still disputed. By some the antrum is looked upon as a reservoir catching as it were the drainage from the neighboring sinuses. By others, tooth infections play an important part, but the majority of observers believe that it is a direct extension of infection from the nasal mucous membrane to the membrane of the antrum aided as it were by pathological variations in the nasal chamber. Some have claimed that antrum infections may be a primary disease but this theory is hard to prove. Relative to infections from other sinuses we believe this does occur in a certain number of cases but on the other hand we have had many cases where the antrum was the only sinus involved. A badly deviated septum which presses on the middle turbinate or an enlarged middle turbinate which rolls inward may block the drainage from the frontal and ethmoid so that the secretion will have a tendency to enter the maxillary ostium. This same obstruction or a stenosed ostium will prevent proper drainage and favor the development of an empyema. We have however observed a number of cases where even with a badly deflected septum and on the opposite side an apparently normal middle turbinate with no apparent obstruction there existed an antrum infection on the side opposite the deflection with a normal antrum on the side of the deflection. As a general rule however, when this is found there is a greatly enlarged middle turbinate on the side opposite the deflection.

Many oral surgeons today are discrediting the importance of direct tooth infections in the antrum and have demonstrated that very few infected teeth have apical abscesses which extend through the mucous membrane of the antrum. Dr. W. L. Shearer in a personal communication

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.





FIGURE No. 1. Photomicrograph of tissue section from a case with chronic suppurative inflammation of the maxillary sinus. The epithelium is not of the typical ciliated columnar type but shows a flattening of the cells. The exudate on the surface is made up of desquamated epithelial and pus cells. The mucous membrane shows marked edema and is infiltrated with lymphocytes and polymorphonuclear leucocytes.

states that he believes that the importance of infection at the root ends of the teeth in relation to the maxillary sinus infection of tremendous importance. There is often edema of the mucous membrane of the maxillary sinus produced by a low grade infection at the root end of teeth. This lowers the resistance of the membrane and makes it easy for infection. He states further that he believes that the majority of chronic antra which come from teeth are produced at the time of the removal of the teeth by the dentist making blind curettements and breaking through the sick membrane at the time of extraction. This corresponds with our experience as we seldom see a tooth infected antrum which has not followed tooth extraction. The organisms found in the nose and sinus are identical while the organisms found in the mouth differ greatly and if mouth organisms gain entrance to the antrum an acute infection quickly develops. In other words the mucous membrane of the antrum has not developed an immunity to the mouth organisms.

We have had an opportunity to see immediately quite a number of cases where the antrum floor was opened during extraction. In very few of these was pus observed in the antrum or was

there an apparent thickening of the mucous membrane; nor was pus found on the next day although some patients stated that the dentist said there was pus in the antrum. From our observation we are forced to believe that very few of these cases are infected before the time of extraction and that if the opening in the mucous membrane can be closed at once there will be no infection. Where the opening cannot be easily closed as in cases where there is a large opening with considerable trauma we have the dentist make a denture or plate which can be secured on adjacent teeth and which will fit securely over the opening. With this in place the opening will often close of itself or can be closed later with a sliding flap as illustrated by the following case. Mrs. N., referred the day following an extraction, had quite a large opening in the antrum where the first molar had been extracted. We had the dentist make a denture immediately and she returned to the office five weeks later with the opening completely closed, the antrum clear to transillumination and x-ray.

We all pass through various stages of surgery and we believe that oral surgeons are recognizing the danger and are practicing and teaching extreme caution where the tooth root approximates the floor of the antrum.

The direct infection from infection in the nasal cavity is we believe the usual route. Even a slight rhinitis is accompanied by congestion of the mucous membrane of the turbinates and septum and discharge. The blocking of drainage by a deflected septum or enlarged turbinate would favor an extension of the infection to the antrum but we have seen cases where a pan-sinusitis existed in which the septum was badly deflected to one side. Obviously the septum could not be the cause of the trouble on both sides, but usually on the side opposite the deflection there is an hypertrophied middle turbinate.

The sinuses are usually sterile; the presence of bacteria indicates infection. The streptococcus, staphylococcus and pneumococcus are found but not usually in pure culture. This according to Dorland<sup>2</sup> is due to the fact that there is usually air presence in the sinus and therefore a higher oxygen tension with diminished infectivity and specificity unless the sinus is completely shut off from communication with other sinuses. The influenza bacillus, diphtheria bacillus, bacillus coli may be found at times in antrum infections. Weishelbaum reports meningococcus intracellularis in the pus of the accessory sinus in a case of cerebral spinal meningitis.



## CLASSIFICATION

According to the duration and pathology existing sinus infections may be classified as acute and chronic infections each showing various forms. The acute infections usually follow acute respiratory infections or acute exanthema and terminate from a few days to six weeks. There is no polyp formation or permanent thickening of the mucous membrane. The chronic forms usually follow repeated acute attacks or where there is blocking of drainage from polyps around the ostium or in the middle meatus.

Hajek<sup>3</sup> divides the inflammatory changes of the mucous membrane of the sinuses into the acute and chronic catarrhal; acute and chronic suppurative and diphtheritic.

According to the specimens of mucous membranes we have examined from the antra we have found, in the acute forms, a high grade infiltration present consisting of lymphocytes and polymorphonuclear leucocytes. Blood-vessels are enlarged and extravasations of blood occur. In the chronic suppurative forms there is a high grade infiltration consisting chiefly of lymphocytes and polymorphonuclear leucocytes and the deeper layers of the mucous membrane are involved. On the surface there is an exudate consisting chiefly of desquamated epithelium; the cells being flattened out and not showing normal cilia.

Hirsch<sup>4</sup> describes in the chronic catarrhal form of inflammation an edema of high degree without suppuration and the mucous membrane of the antrum was found either in the form of edematous ridges which filled up the cavity or drawn out to a cord which extended toward the ostium and on these cords polyps were suspended. The following case will illustrate this type. Mr. Wm. E. came for examination complaining of headache and nasal discharge and poor breathing. The examination showed the septum deflected to the right, large amount of postnasal discharge and a large soft mass practically filling the naso-pharynx and the posterior part of the right nostril. The right antrum was blurred on transillumination and x-ray. A radical antrum operation was performed and the antrum found filled with a mass of soft tissue which extended into the nose through a dehiscence in the bone of the lateral wall of the antrum and this extended into the naso-pharynx. All of this polypoid tissue was removed en masse through the antrum opening. The walls of the antrum were apparently dilated. The laboratory reported a polypoid degeneration of the mucous membrane. This is one of the most extreme cases



FIGURE NO. 2. Photomicrograph of tissue section from a case with chronic catarrhal inflammation of maxillary sinus. The ciliated columnar epithelium can be noted. There is some polypoid degeneration with marked lymphocytic and eosinophilic infiltration of the tissue.

of chronic polypoid degeneration that has come under our observation.

Hirsch<sup>4</sup> believes that most of the cases of vasomotor rhinitis are due to chronic inflammation of the nasal sinuses. This has to a large extent been our experience. I will later show slides of a typical case of vaso-motor rhinitis with negative washings. In this case a young lady twenty-four years of age had complained of congestion of the nose for a number of years, sneezing and at times considerable watery discharge. The congestion was present during the entire year. Examination of the nose showed a typical vasomotor rhinitis and the x-ray showed blurred antra with a thickened mucosa but there was no pus in either antrum on irrigation. At operation the mucous membrane was found greatly thickened and polypoid but there was no pus in the antra. Microscopically the mucous membrane showed an edema of high degree with crypt like indentations, the cells being principally lymphocytes and polymorphonuclear leucocytes. This case was greatly improved after a bilateral radical antrum operation.

## COMPLICATIONS

The relation of maxillary sinus infection to diseases of the eye, particularly external diseases, has been demonstrated in our practice. In a



child with chronic phlyctenular kerato conjunctivitis we saw almost immediate improvement following operation on infected antra. We would urge careful examination of the sinuses in recurrent phlyctenular eye conditions in children where other sources of infection have been eliminated. Asthma in infants should also call for careful sinus examinations. We have seen a number of asthmatic children greatly improved or cured following drainage of infected maxillary sinuses. A small percentage of cases may be the source of infection in rheumatism. Mercer<sup>5</sup> reports about 5 per cent the source of infection in rheumatism but rarely the causative factor in arthritis. Locally an orbital cellulitis may follow antrum infections or an osteomyelitis may develop.

#### DIAGNOSIS

In diagnosis the physical signs are well known by all. Referred pain to the frontal region and the eye should be kept in mind. Transillumination is a great aid but not reliable in all cases. We believe before operating all cases should be checked by the x-ray as we have found the x-ray much more reliable in diagnosis particularly of the chronic cases. An exploratory puncture and washing is I believe a very commendable procedure although I know some good rhinologists claim they never irrigate the antrum. It is a quick and practically painless office procedure and will undoubtedly clear up many acute cases without operation. We have had many acute antrum infections clear up with one or more antrum irrigations. The dangers of puncture and irrigation have been described by many and a few practical points may be kept in mind, as avoiding injections of air into the antrum and using a sharp needle so the mucous membrane may be punctured and not pushed in front of the needle nor torn loose from the bone. Do not inject then if you do not feel that the needle is in the antrum. This can be ascertained by moving the needle back and forward. The needle should not be pushed after you feel that it is in the cavity as Hajek reports accidents where the needle has been pushed through the opposite wall and the fluid injected into the cheek. If the needle is pushed too far it may encounter the plexus of veins on the orbital wall and a hemorrhage may result. It is quite probable that air injected into these veins caused the fatalities that have been reported. If the veins are punctured even if the hemorrhage is not severe the blood remaining in the cavity will prove a good culture media if organisms are present and an infection will develop. The anatomical variations must be remembered; a concave face means a high antrum.

The proper place to puncture is high up under the inferior turbinate where the turbinate joins the lateral nasal wall through the process maxillaris as pointed out by Ruskin.<sup>6</sup> While a negative irrigation may not mean a healthy antrum if the pus is very thick or in the chronic catarrhal cases where there is no secretion we believe that in a large majority of acute cases an antrum irrigation gives valuable information.

#### TREATMENT

In acute cases drainage by irrigation may cure and if not an antra meatal operation should be performed. We do not believe however, that these irrigations should be continued over a long period and if the case is not relieved after a few irrigations, an opening under the inferior turbinate should be made and we have found that any type of antra meatal which gives proper drainage is as a rule successful. Most of us have adopted from time to time numerous changes in our technique. We have found tubes useful in children where after irrigations are difficult. If proper tubes are placed in the antra there will be a certain amount of continuous drainage and if the ostium is blocked and it is impossible to irrigate, the pus can be sucked out through these tubes. After an antra meatal operation where you have good drainage care must be exercised not to irrigate too frequently as the ciliated epithelium

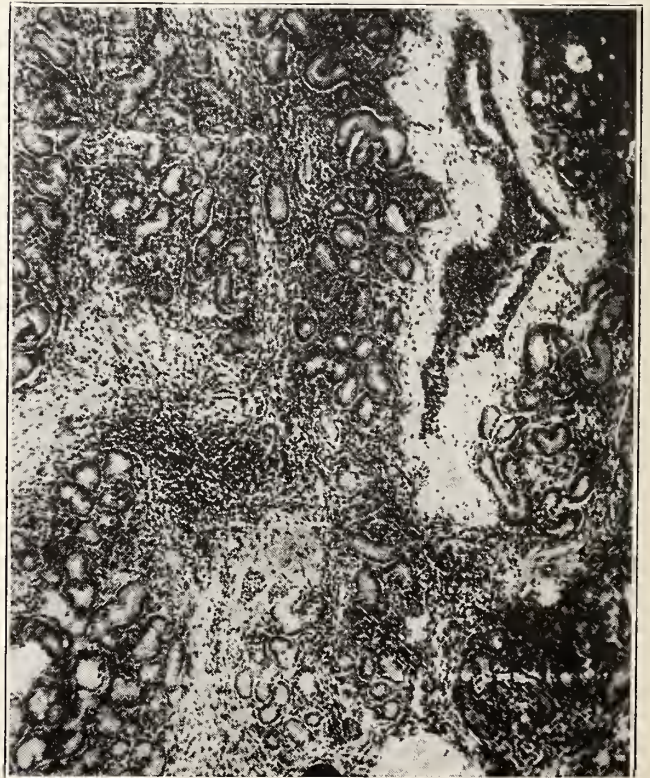


FIGURE NO. 3. Photomicrograph of section from tissue removed from the ethmoid region showing marked lymphocytic infiltration about the mucous glands.



of the antrum does not respond well in the presence of water and the action of the cilia is destroyed or inhibited. Irrigate about the second or third day after the operation and then in bad cases two or three times at intervals of two or three days and then stop irrigating. Our attention was called to this years ago by the fact that cases which left our care within a day or two would return in a few weeks entirely well, having had no treatment in the interval except cleansing the nose. This as we have stated applies to acute cases as many of the chronic cases will require a radical operation to affect a cure. If the diseased mucous membrane is not all removed in these cases they do not get well and this can be accomplished only by a thorough inspection. A Caldwell Luc operation under local anesthetic with proper nerve blocking takes only a short time and affords opportunity for careful inspection of the mucous membrane. During the operation care must be exercised not to interfere with the infraorbital nerve because of the disagreeable numbness of the cheek which may persist for several months but by making the incision in the mucous membrane low down on the gum margin and not dissecting up higher than necessary to make an opening into the antrum this nerve may be avoided. The wound in the mouth closes quickly and we have never had a fistula develop. A good opening can be made into the nose through the opening made in the anterior wall and for taking down the ridge of hard bone near the floor we prefer using a bone drill. I wish to call particular attention to the chronic catarrhal type of antrum infection as I believe this type is the one most frequently overlooked in our routine examination. In this type of infection a very careful history with repeated examinations and a reliable roentgenologist are necessary in making a diagnosis. Our attention should also be directed to this type of chronic infection in the cases with recurrent polyps or in those with the vaso-motor rhinitis which persist during the entire year. In the future we believe that more radical surgery will be done in the chronic catarrhal infections of the antrum as intranasal drainage has not proven successful in our hands.

#### REMARKS:

1. A careful study of the normal maxillary sinus with a knowledge of the anatomical variations and pathological changes is essential in careful sinus work.

2. Cooperation with oral surgeons in the study of antrum infections is advocated. If during extraction an opening is made into the an-

trum it should be closed at once. If unable to close it have a dentist make a denture to fit over the opening. If an infection already exists in the antrum intranasal drainage should be established.

3. The x-ray is much more reliable than transillumination in diagnosis. Irrigations are helpful in diagnosis and early irrigations in acute cases will in a large percentage of cases make operating unnecessary. Irrigations should not be continued over long periods of time following operations.

4. In considering operations on the maxillary sinus the adjacent sinuses if infected must be operated or the results of the antrum operation will be unsatisfactory.

5. The chronic catarrhal type of infection without pus is the type most difficult to diagnose, most persistent in its course and most likely to cause reflex disturbances.

6. A careful study of the pathology of sinuses operated will lead us to better diagnosis and more cures.

#### BIBLIOGRAPHY

1. Gurlitz—Acto Oto-Laryn., Stockholm, 1920.
2. Dorland—Annals O. R. L., Dec., 1926.
3. Hajek—Text Book, "Nasal Accessory Sinuses".
4. Hirsch—Laryngoscope, January, 1927.
5. Mercer—Annals O. R. L., March, 1927.
6. Ruskin—Laryngoscope, March, 1924.

### WHAT ARE WE DOING WITH CERVICAL CARCINOMA?\*

K. L. JOHNSTON, M.D., F.A.C.S., Oskaloosa

Man has known cancer twice as long as he has known Christ. Hippocrates attacked it with the burning iron in 450 B. C., and Celsus with the knife during Christ's lifetime. Cervical carcinoma presents a problem in which the true pelvis contains practically all of the pathology, even in late cases, if we except the terminal damage to the kidneys from ureteral obstruction and the anemia incidental to blood loss.

It is essentially a disease of multiparous women in the third, fourth and fifth decades of life. Old cervical tears, erosions, and non-specific infections markedly favor its beginning.

Pathology—The cervical epithelium is not essentially different from skin, except that the surface cervical cell becomes cylindrical as the os internum is reached. Martzloff's<sup>1</sup> classification of cervical carcinoma is now commonly accepted, by surgeons and pathologists, and is as follows:

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



1. *Fat spindle cell type* resembling the deepest layers of cervical squamous epithelium—12 per cent belong to this type.

2. *Transitional cell type* having cells resembling the middle layers of normal cervical epithelium—66.8 per cent belong to this type.

3. *Spinal cell type* resembling surface epithelium of cervix—15.5 per cent of this type.

4. *Adeno-carcinoma* resembling alveolar cervical gland tissue—5.4 per cent of this type.

By resemblance we mean that the predominant cells of the malignancy resembles the normal cell taken from the above localities of the cervical epithelium, and whether they actually originated there is controversial.

Their order of malignancy, from least to most, is first, spinal; second, adenocarcinoma; third, transitional; fourth, fat spindle. Also the greater the proportion of stroma the less the malignancy. Broder's<sup>2</sup> work on cell differentiation as a degree of malignancy agrees with these statements.

Macroscopically the local changes are induration, disintegration, and excavation; with secondary infection.

Ewing<sup>3</sup> states that portio cancer tends to spread to the vaginal vault and not up the canal, and never invades the corpus; while canal cancer often spreads to the peritoneum, but has no tendency to invade the vagina and often spares the portio.

Martzloff's<sup>1</sup> study of 300 cases at autopsy, showed that when the entire thickness of the cervix was involved that 60 per cent have parametrial invasion, and that the spinal type had a low incidence of broad ligament involvement; while it is highest in the fat spindle cell type. In this series no patient with broad ligament involvement was cured by operation.

*The course of the disease* is toward a steady spread by direct continuity into the parametrium and into the parametrial lymph spaces, with often a striking absence of lymph node involvement. Kroemer<sup>4</sup> showed the nodes to be free in 66 per cent of fatal cases at autopsy. The bladder, rectal and vaginal involvement is by continuity. It is three times as likely that a normal feeling parametrium is involved as that an indurated one is inflammatory.<sup>3</sup> The natural termination of the disease, in most cases, is by uremia, from ureteral occlusion by pressure.<sup>3</sup>

The literature for years has been mixed up with a varied terminology for the various clinical types, but now there is a general tendency toward the Schmitz<sup>5</sup> classification, which is as follows:

*Group 1.* Eighteen per cent of all cases. Here the growth is clearly localized to the cervix, with no sign of extension beyond, no fixation and it resembles a benign growth.

*Group 2.* Seventeen per cent of all cases. Here there is doubt of definite localization of the growth and a doughy feel to the parametria.

*Group 3.* Forty per cent of all cases. Here there is definite invasion into the surrounding tissues and organs, and fixation.

*Group 4.* Twenty-five per cent of all cases. Here there is wide dissemination into surrounding tissues, large ulcers or craters, and complete pelvic involvement.

The recurrent cases are classified alone.

Removal of small sections of any suspicious lesion for biopsy is not attended with the same danger as in malignancy elsewhere in the body, and is advisable if cautery is used after the resection. All writers are considering five year freedom from recurrence as a cure.

Surgery in bygone years was the only hope for recovery and every effort was made to extend the field of operability as widely as possible and to include every case where removal was at all possible. The cardinal principle of malignant surgery, of wide excision of the involved area, cannot be effected, because of the proximity of the bladder and rectum to the uterus. The Reisch-Wertheim-Schauta operation was developed in an endeavor to remove not only the uterus but all of the parametrium and appendages. This is a formidable procedure and carries a mortality of 16 per cent. This was surgery's answer to the failure of ordinary hysterectomy. There is no place as a curative agent for the ordinary pan-hysterectomy, because of the parametrium being untouched. Radical surgery should at present be limited to Group 1 cases, and to those of Group 2 who have been made operable by radiation.

Greenough's<sup>6</sup> report to the American College of Surgeons, shows 146 operative cases in 688 cases coming for treatment, with 33 per cent of cures, and a 16 per cent mortality.

Any contraindication to general surgery such as nephritis, organic heart disease, anemia, or obesity should be absolute.

Cautery alone has cured no proven cases and should be reserved for palliation in late cases, use in obtaining biopsy material, or combined with surgery or radium.<sup>6</sup>

Operative surgery has nothing to offer recurrences except palliation in relieving obstructions or in ridding the body of extensive sloughs. The incidence of post-operative fistula is 5 per cent.

*Radiation* of malignant cervixes requires as much knowledge and technique as operations for the same. The efficiency of radiation depends on, first, proper dose; second, homogeneous distribution of the rays within the true pelvis; third, cellular type sensitiveness to radiation; fourth, systemic reaction, and fifth, untoward results from radiation.<sup>5</sup> In detail:

1. The radiation dose is the product of the quality or intensity of the ray and the time of exposure. The unit of dose is determined by the skin reaction to a known quantity of ray. An erythema of the skin surface developing in three or four weeks is called 100 per cent erythema skin dose.

2. Homogeneous distribution of the rays within the true pelvis is aimed at, so that a lethal dose for cancer cells reaches all parts of the pelvic cavity. Schmitz<sup>7</sup> working with a water phantom showed radiation intensity decreased in inverse ratio to distance and absorption. His plotted intensity curves based on the above show that after taking into consideration first the size of the pelvis and second that the bladder and rectum are not more than 3 cm. from the cervix, that 150 per cent to 175 per cent erythema skin dose, which normal tissue will stand without necrosis, is the limit of radiation. This is not more than 5,600 mg. hours when given by one exposure to radium. The dose can probably be cut to 4,800 mg. hours. This will give 30 per cent efficiency at the periphery of the pelvis. Below 20 per cent efficiency is stimulating and not lethal. X-ray later will assist in cell destruction at the pelvic periphery.

3. Comparative sensitiveness of various cell types of radiation is controversial, but it is probable that the more immature the cell type, and the more actively cell division is occurring, the greater the radiation response. How radiation affects cancer cells is also controversial. Farrar<sup>8</sup> believes it to be chiefly due to stimulation of connective tissue overgrowth. Ewing<sup>3</sup> states it to be due to its effect on blood-vessel intima, with thrombosis, and later scar production. Others think it to be due to direct action on the cancer cell. No one of these hypotheses explains the occasional cure, by radiation, of a widely disseminated terminal cancer. All agree there is no bodily immunity produced by radiation.

4. Systemic reaction to radiation is an acute split protein intoxication, produced by cellular destruction, and is to be seriously reckoned with in extensive growths. It has been fatal in several instances. Systemic reaction is so common

that correction of cardiac, renal, and hematogenous anomalies are essential before radiation.

5. Bad results include stimulation of the growth in 15 per cent of all cases;<sup>9</sup> fistula occurring in 5 per cent;<sup>10</sup> and under and over treatment due to faulty technique.

Farrar<sup>8</sup> divides the local effect of radiation into:

1. Stage of hyperemia, lasting seven days.
2. Stage of slough, lasting nine to forty-five days.
3. Stage of healing, lasting up to next stage.
4. Stage of contraction, reached in three months.
5. Stage of marked contraction, reached after six months.

Radiation may be used in one of three ways:

1. Preparatory to operation in early cases; when so used a full dose being given it is best to wait until the stage of healing has been reached, to avoid infection.

2. For recurrences after surgery, where very little hope for permanent cure should be given.

3. As a curative procedure. Considering the cases by types the following facts present themselves.

Type 1. Lynch<sup>11</sup> reviewed the literature and found only 308 operable cases which had been treated by radiation alone, five years or more ago. Forty per cent were free from disease after five years. There was no large series of cases from any American clinic. Doderlein's foreign series of 147 cases showed 43½ per cent of cures. Lynch collected 2,103 cases from nine large surgical clinics with 42 per cent of five year cures, and 16.7 per cent operative mortality.

Type 2. In Doderlein's group there were ninety cases with 36 per cent of five year cures.

Type 3. Doderlein had 214 cases with 11 per cent of five year cures. It should be remarked however that no American statistics equal those of Doderlein's group 2 or 3, in cures.

Type 4. These should not be radiated due to the danger of systemic reactions.

Surgery preceded by radiation and followed by x-ray has many exponents, among them Lynch<sup>11</sup> who reports 57 per cent cures after five years in a series of eighteen group 1 cases.

#### RESULTS OF QUESTIONNAIRE SENT TO SURGEONS IN TEACHING CLINICS OVER THE U. S.

There were thirty replies received, of whom fifteen advised surgery and fifteen advised radium for group 1 cases. All are agreed on radiation for all other types, and a few combine it with cautery. Of those who operate, all insist that the lesion must be local. Practically all



agree on biopsy for diagnosis. The operative mortality ranges from 1 per cent to 40 per cent and apparently goes up as more radical surgery is done. Only five of the group furnished statistics as to their cures after five years. They were as follows—Schmitz<sup>12</sup> had 14½ per cent of all types cured by radiation alone. Henderson<sup>13</sup> had 20 per cent of cures in cases selected for operation. Clark<sup>14</sup> had 31 per cent well after five years by radium alone. Culbertson<sup>15</sup> had 25 per cent, well by surgery. Of the fifteen who operate, four use pre-operative radium as routine and four others occasionally with no reason given as to why they do or don't. All are agreed that cervical pathology should be cleared up as prophylaxis against cancer. Ten of the fifteen who operate treat post-operatively as routine by x-ray, and the other five do for recurrence with both types of radiation. Only three have seen a radiation cure of a recurrence.

*Report from Iowa Surgeons to Questionnaire.* This brought thirty-two replies, of whom seventeen advise surgery in early cases, four advise radium followed by surgery, eight use radium alone, one uses cautery alone, one cautery and surgery, and one had no choice. For late cases nineteen advise radiation alone, three use cautery, eight use cautery and radium, one advises surgery and x-ray, and one has no treatment. In determining operability six say the growth must be limited to the cervix, and all the rest of the operators say the extent of the growth is the determining factor. Operative mortality is given from 0 to 30 per cent. The five year results brought answers from twelve of the operators and ranged from none alive in hands of four men to 75 per cent alive in hands of one man. Average of the remainder is about 15 per cent alive at five years. Of those treated by radiation alone the eight men doing so reported cures from 10 to 50 per cent, with an average of about 30 per cent. Twenty-nine reported favoring biopsy, and as treatment for prevention twenty-eight advise removal of affected cervical tissue by one means or another. Five surgeons use pre-operative radiation, and three use pre-operative cautery. Eight men use post-operative radiation, and only two men report cures of recurrences. Possibly the low operative percentage of cures may be due to insufficiently radical surgery. My personal experience is that all I have operated on in the past are dead or now have recurrences.

#### CONCLUSIONS

1. No treatment will cure 50 per cent of all cases.
2. The choice between radiation and surgery

is an open one, as results practically parallel one another, when both are in competent hands. Radium has the slight advantage of no primary mortality.

3. If operation is done it must be a complete radical of the Wertheim type.
4. Pre-operative radiation seems of benefit.
5. Cautery alone cures no proven cases.
6. Recurrences practically all die, no matter what the treatment.
7. Correction of pre-cancerous cervical pathology is at present our only hope of lowering death rate materially from this disease.
8. The proportion of operators, for cervical cancer, to radium users is higher in Iowa than elsewhere in this country, but only slightly so.
9. The chance of a case being cured in type 1 is about two in five; type 2, is one in three; type 3, is one in ten; type 4, is one in one hundred.
10. Biopsy in cervical affections is safe and should be routinely done and is our only way of picking up the early cases with certainty.

#### REFERENCES

1. K. H. Martzloff—Northwestern Medicine, vol. xxv, No. 3, page 127.
2. A. C. Broders—Annals of Surgery, May, 1922.
3. James Ewing—Neoplastic Diseases, issue 1922. W. B. Saunders & Co.
4. Kroemer—Archives of Gynecology, 73:57.
5. Henry Schmitz—Surg. Gyn. Obs., vol. xxxix, No. 6, page 775.
6. R. B. Greenough—Surg. Gyn. Obs., vol. xxxix, No. 1, pages 18-26.
7. Henry Schmitz—Am. Jour. Obs. and Gyn., vol. ix, No. 5, page 644.
8. L. K. Farrar—Am. Jour. Obs. and Gyn., vol. xii, No. 4, page 600.
9. Keene—Surg. Clinics N. A., vol. vi, No. 1, page 113.
10. Ward—J. A. M. A., vol. lxxxv, No. 3, page 159.
11. F. W. Lynch—J. A. M. A., vol. lxxxvii, page 1700, November, 1926.
12. Henry Schmitz—Personal Communication.
13. M. L. Henderson, Milwaukee—Personal Communication.
14. J. G. Clark, Philadelphia—Personal Communication.
15. Carey Culbertson, Chicago—Personal Communication.
16. J. R. McCord, Atlanta—Personal Communication.
17. W. S. Gardner, Baltimore—Personal Communication.
18. D. B. James, Philadelphia—Personal Communication.
19. L. E. Burch, Nashville—Personal Communication.
20. H. W. Yates, Detroit—Personal Communication.
21. F. C. Hammond, Philadelphia—Personal Communication.
22. Dewell Gann, Little Rock—Personal Communication.
23. J. C. Litzenburg, Minneapolis—Personal Communication.
24. C. B. Ingraham, Denver—Personal Communication.
25. E. L. Stone, New Haven—Personal Communication.
26. A. H. Curtis, Chicago—Personal Communication.
27. A. B. Spalding, San Francisco—Personal Communication.
28. J. O. Pollak, New York City—Personal Communication.
29. C. R. Robins, Richmond—Personal Communication.
30. J. M. Malloy, Memphis—Personal Communication.
31. N. F. Miller, Iowa City—Personal Communication.
32. Stephen Rushmore, Boston—Personal Communication.
33. C. W. Hibbit, Louisville—Personal Communication.
34. B. P. Watson, New York City—Personal Communication.
35. R. Peterson, Ann Arbor—Personal Communication.
36. J. T. Mason, Seattle—Personal Communication.
37. E. Dunlop, Dallas—Personal Communication.

38. Prof. Gyn. Dalhousie Univ., Halifax, Nova Scotia—Personal Communication.
39. E. W. Titus, Washington, D. C.—Personal Communication.
40. B. M. Anspach, Philadelphia—Personal Communication.
41. F. C. Walker, Indianapolis—Personal Communication.
42. F. Falls, Chicago—Personal Communication.
43. J. Niemack, Charles City, Ia.—Personal Communication.
44. Dr. Schilling, New Hampton, Ia.—Personal Communication.
45. J. W. Martin, Des Moines, Ia.—Personal Communication.
46. H. E. Pfeiffer, Cedar Rapids, Ia.—Personal Communication.
47. J. F. Clarke, Fairfield, Ia.—Personal Communication.
48. E. A. Jenkinson, Sioux City, Ia.—Personal Communication.
49. W. L. Hearst, Cedar Falls, Ia.—Personal Communication.
50. O. J. Fay, Des Moines, Ia.—Personal Communication.
51. L. A. West, Des Moines, Ia.—Personal Communication.
52. A. J. Weaver, Muscatine, Ia.—Personal Communication.
53. S. A. Spilman, Ottumwa, Ia.—Personal Communication.
54. J. L. Townsend, Sioux City, Ia.—Personal Communication.
55. W. W. Bowen, Fort Dodge, Ia.—Personal Communication.
56. J. F. Herrick, Ottumwa, Ia.—Personal Communication.
57. F. R. Sparks, Waverly, Ia.—Personal Communication.
58. E. D. Allen, Hampton, Ia.—Personal Communication.
59. L. H. Fritz, Dubuque, Ia.—Personal Communication.
60. F. R. Harris, Dubuque, Ia.—Personal Communication.
61. I. E. Nervig, Sioux City, Ia.—Personal Communication.
62. Dr. Thornton, Waterloo, Ia.—Personal Communication.
63. Donald Macrae, Council Bluffs, Ia.—Personal Communication.
64. Dr. Sheldon, Cedar Rapids, Ia.—Personal Communication.
65. W. L. Allen, Davenport, Ia.—Personal Communication.
66. Park Hosp. Clinic, Mason City, Ia.—Personal Communication.
67. Chas. Ryan, Des Moines, Ia.—Personal Communication.
68. P. E. Sawyer, Sioux City, Ia.—Personal Communication.
69. F. M. Tombaugh, Burlington, Ia.—Personal Communication.
70. A. G. Hejninian, Anamosa, Ia.—Personal Communication.
71. E. A. White, Davenport, Ia.—Personal Communication.
72. Thos. E. Gutch, Albia, Ia.—Personal Communication.
73. W. A. Rohlf, Waverly, Ia.—Personal Communication.
74. Geo. Kessel, Cresco, Ia.—Personal Communication.
75. Dr. O'Keefe, Waterloo, Ia.—Personal Communication.

### Discussion

**Dr. William Jepson, Sioux City**—I feel that the Society is deeply indebted to Dr. Johnston for bringing before it this pertinent and timely question. He has so thoroughly covered the ground from the standpoint of facts bearing upon the subject that I have very little upon which to make any opening remarks. The gentlemen who preceded the Doctor on the program this morning gave consideration largely to problems referable to prophylaxis, and it was with these words that Dr. Johnston closed his paper: "Correction of precancerous cervical pathology is at present our only hope of lowering the death rate materially from this disease." While I do not see here at present any of those gentlemen who, to a large extent, represent the specialty of preventive medicine, I had hoped that they might be here because I find it necessary to take a sort of a bird's-eye view of this matter, in order to find if there is anything I can see, and that which I do see, as already stated, concerns prophylaxis. The question is asked, what are we doing for "cervical carcinoma?" I will attempt to answer by saying that if we consider the ratio between cancer of the

uterus and cancer of other parts of the body as revealed by United States vital statistics being applicable to Iowa, then last year we permitted 343 women to die and the year previous 330. This may not sound like a large number of patients, but let me see if I can fix this in our minds by saying that the number of deaths from typhoid fever, paratyphoid fever, measles, smallpox, scarlet fever and erysipelas, in our state during the past year was 343. So the deaths from cancer of the uterus were equal to the deaths from all the diseases I have mentioned. Furthermore it is only short by forty-three of being half as many deaths as occurred from pulmonary tuberculosis last year. Do you know that of the death certificates issued throughout the state of Iowa, every tenth one you sign is for cancer? Do you know that of the 25,509 individuals that died in this state last year, 5,761 died of cancer? That is over 16 per cent. There is no other disease that anywhere near approximates this. I am sure that in the cases of these poor women who have been the mothers of our race, it has not been their wish to die. Why did they die? Possibly from one of two reasons: First, they did not recognize the danger of cancer of the uterus at the time of entering the period of senility. Why did they not know this? Because we in caring for them have too often failed to tell them of that fact. I am quite sure that if every woman who has given birth to children could know that she incurred the risk that she has of dying of cancer, in consequence of the damage sustained in giving birth to her child, she would seek that simple relief which is obtained by correcting the cervical pathology which predisposes to cancer. Second, when we come to consideration of the means of curing cancer, I would like to make use of a sort of "Irish bull" to express what I think. The best way to cure cancer, or to cure anything else, is "before it begins"; namely, in the manner already indicated, through correction of the pathology which predisposes to it. Now, in the case of a woman coming to us with the fear that she may be suffering from cancer, what should be our attitude towards her? I possibly slightly differ from the essayist, in this: While I have every respect for the information which at the outset the examinations have revealed, do not forget that in the early period, oftentimes in removing the section you may remove it from that part of the uterus wherein malignancy has not started, as the result of which you may be sailing along under a false sense of security. So far as the patient's safety is concerned, the thing to do is to be sure that she does not leave you when she has pathology which may be cancer, and to relieve any doubt that may be in your mind you should treat the condition as if cancer. Do not wait until you find the evidence through microscopic section or have a condition that gives evidence due to disintegration of structure. In closing I would like to leave this thought: Every cancer is curable in the beginning, provided it is located so that the area involved may be either



destroyed or removed, and at any other period it is absolutely incurable. Consequently, while the classifications of Dr. Schmitz and many others are excellent from the standpoint of trying to formulate our program treatment, from the standpoint of the patient they do not amount to a great deal because that patient has only one chance if she has cancer, and that is through the possibility of one of the two things I have mentioned: Removal or destruction. One word further: Whether you destroy the tumor with the actual cautery or the x-ray, or whether you remove it, is not material, so it is thoroughly destroyed or removed.

**Dr. Frank M. Fuller, Keokuk**—There is revealed in this paper a great deal of active research in the attempt to bring together some facts upon which to base an opinion, and I believe we should congratulate Dr. Johnston on the presentation of a paper of this character. I do not speak from the surgical standpoint, as you know, but I desire to enter a protest against charging all of our mortality from cancer up against the surgeon and against the physician or the medical profession. We should endeavor to teach these women the things they ought to know, but you cannot teach them by radio nor by letter or post-card, or in any way until they come under your observation. Within two weeks I have had four women past the menopause come to my office for examination and diagnosis. Each one of them had a surgical tear and the youngest child born to any in the group was ten years of age and the oldest one was almost thirty. In other words, those women had gone from ten to thirty years, and the examination which I gave them was the first time they had ever been examined for a condition at a period of life which we now know is a possible cancerous age. So I think the question revolves back to the education of the people rather than of the physician. I know the earnestness with which the medical men of Iowa are working, I know the eagerness with which the men who attend these meetings are endeavoring properly to do their work and to search out and find evidence of pathological conditions. No one in this room needs to be told that cancer should be treated before it begins, no one needs to be told that cancer should be treated at the earliest possible time. But the point I wish to make is that every man in Iowa should at every opportunity possible endeavor to teach the people that they should present themselves for observation and proper examination in order that this condition may be prevented. The people can be taught this. Women are being taught that if any soreness or lump in the breast develops, they should report at the physician's office. But there is a large group of women who sustained tears of the cervix in childbirth away back when the condition was not considered so important as it is today. We have a large number of women of cancerous age who come with the hesitancy of delay, some sort of a feeling that they do not want to come to the doctor's office for examination of the pelvic organs, and those

are the ones who are furnishing the large number of deaths from inoperable cancer.

**Dr. J. T. Hanna, Burlington**—Dr. Johnston is to be commended for presenting this modern viewpoint of the subject of cancer. I believe that we should be conservative in the treatment of cancer, and the most conservative treatment in cancer is the radical removal, whether it is by radium or by surgery. Personally, I believe the surgical treatment to be superior. In regard to diagnosis, I believe that a woman in the cancer age with a suspicious lesion of the cervix should have that cervix examined in the laboratory, attached to the body of the uterus, rather than by the method of biopsy. Too frequently microscopical examination of a piece of tissue that has been removed will miss an early malignant portion and permit the patient to develop an inoperable cancer of the uterus. I believe it is preferable to remove suspicious tissue. Under the conditions of modern operative treatment the mortality is low, while the mortality of cancer is 100 per cent, and whatever is gained by early radical treatment is the gain of the patient.

**Dr. Paul A. White, Davenport**—From the recent study of a group of sixty-eight carcinomata of the cervix that we have had in recent years, I am forced to disagree to some extent with Dr. Fuller's statement. It is a hopeless field considering all the circumstances of the present time. Of these sixty-eight cases there were only five that could be considered as anything other than hopeless. The startling thing to me was that, of the remaining sixty-three patients, 50 per cent had reached the late, inoperable, hopeless condition through their own ignorance or fear, while another 50 per cent had reached it through bad advice, failure to examine, failure to run the thing into a corner and make a definite diagnosis on which rational advice could be based. These five patients are living and well. The others are either dead or in a rapidly disintegrating state. Any reasonable method that will bring the diagnosis to light is justifiable. I feel that if radical surgery is going to be adopted as a measure in case of doubt, a great deal of radical surgery is going to be done when the question could be settled by simpler methods. I believe that we have not sufficient justification to leave a definitely carcinomatous surface to radiation alone, if it can be completely removed by operation. On the other hand there is definite danger of disseminating a localized growth if operated upon without its previous destruction. My practice has been to treat the early lesions of the cervix with radium, following that in six to eight weeks with total hysterectomy. Anyone who has seen how completely the primary lesion heals, and how difficult it is to demonstrate cancer cells in the cervix after this method, I am sure would prefer to operate after this interval, rather than proceeding immediately. So that while the situation seems hopeless, certainly this 50 per cent who reached a hopeless state through professional neglect or lack of initiative in examination, are within

the range of possibility of being placed in the curable group. Education of the public and other stimulative measures will, in time, bring many who reach a hopeless state through their own neglect or ignorance into competent hands much earlier. As brought out by Billings a few years ago, the lack of thorough examination is one of the big factors in the acquisition of advanced pathology.

**Dr. E. C. McClure**, Bussey—One feature of the subject of cervical carcinoma has not been emphasized. We have heard a great deal this morning about prevention. There is one point at which every one of these patients comes to the general practitioner first, and this is the time to detect and correct lacerations. It comes back to the old story: We then get away from the timidity, because at the time the baby comes these women expect us to repair any tears, and that is the time we should do so, and from the consensus of discussion today that very procedure would stop in the beginning a large percentage of this trouble.

**Dr. Johnston** (closing)—The result of biopsy is not the final determination of what should be done. If you see a cervix that you feel should be radically removed, do it, in spite of the fact that the biopsy report is negative. It is better to err in too radically treating these cases than in being too conservative. It is the consensus of opinion that biopsy can be done with comparative safety even if the condition is cancer. When you do biopsy on a malignant breast you are probably killing the woman, but this is not true of the cervix. As to the amount of the involvement—Martzloff believes that when one-half of the thickness of the cervix is involved, the condition is hopeless, so far as permanent cure is concerned, in 60 per cent of the cases. If we are going to get anywhere we must take heed to the warning sounded by Dr. Jepson, in his discussion of this paper, that prophylaxis must be the way. Women should be taught to come in after delivery and have a very careful pelvic examination, and all existing cervical pathology must be corrected. As to the matter of information being spread among the lay people, that if certain symptoms appear, the woman should go to the doctor for examination. This is a step in the right direction, but there is a great deal of misinformation existing. The average woman thinks that so long as she does not bleed irregularly she cannot have cancer. Getting back to the subject of pathology—cancer of the cervix develops first as induration, followed by excavation. The thing cannot bleed until she has excavation or surface ulceration. By the time cancer of the cervix has progressed to the point that bleeding occurs, the entire thickness of the cervix will probably be involved; which means that parametrial spread has occurred. Regarding the question of surgery following the use of radium—We are not concerned with the surface of the lesion. You can put radium in and clean the thing up pre-operatively, with ease. But if you then operate and do an ordinary hysterectomy, you will have

left behind most of the parametrial tissue, and it is there that the recurrence will occur, and not in the vaginal stump. If you must operate these cases, unless you do a radical Wertheim, which is a very difficult operation, keep your knife in your pocket and send the patient to someone for radiation. In New York I heard a young man read a paper in which he handed out some rather wonderful statistics, of cases of cure of cervical cancer by operation, Ochsner arose and said "I have operated on many of these cases, in the past, and they are practically all dead".

## IOWA HEALTH NOTES

HENRY ALBERT, M.D., Des Moines  
Commissioner, State Department of Health

### PREVALENCE OF COMMUNICABLE DISEASES WITH FORECASTS AS TO THEIR PROBABLE DEVELOPMENTS

About six weeks may elapse between the time of writing these notes and their appearance in the Journal and release for physicians.

Nevertheless, we believe—and we are also so informed by many physicians—that the data furnished is worth while in keeping physicians informed concerning the status of communicable diseases in the state. The Department issues a weekly "health message" with information concerning the diseases reported during the preceding week. This is sent to every newspaper, every health officer, and also to the president and secretary of every county medical society. The data is therefore readily available to any physician who is especially interested.

During the thirty days preceding September 15th, the following have been the more important of the communicable diseases: Poliomyelitis, whooping cough, diphtheria, typhoid fever, smallpox, influenza, Malta fever, and scarlet fever.

*Poliomyelitis* (infantile paralysis)—Nine cases were reported during August and thirteen during the first half of September. Of course there were more cases than reported since there are always many cases which are not recognized. All of the cases reported, so far as known, showed symptoms of paralysis. We know that the majority of the cases of poliomyelitis do not show this significant symptom. It is these mild cases and carriers that are no doubt chiefly responsible for transmitting the disease.

The cases reported since August 1st show the following distribution: (By cities) Bettendorf, 1; Burlington, 1; Clayton, 2; Clinton, 3; Des Moines, 2; Dubuque, 4; Dyersville, 2; Guttent-



berg, 1; Sioux City, 1; Turkey River, 1; Waterloo, 2; Waukon, 1; Waverly, 1.

It will be noted that most of the cases occurred in the northeastern portion of the state. Des Moines also had its share. As noted in this column last month, we expected some increase this fall. There is usually a lessening in the number of cases with the oncoming of cold weather. We accordingly believe that by the time this article is read, the peak of this autumn's wave of poliomyelitis will have been reached.

It is exceedingly important to remember however, that there will no doubt be some cases reported every month this winter and also that carriers of the infection will be with us throughout that time. We must also remember that Iowa has not had any extensive outbreak of infantile paralysis since 1925 and that we have accordingly a large number of susceptible persons in the state.

There is at present an unusual prevalence of the disease in Ohio and California and some increase over the annual average in practically every state in the Union. We are seriously concerned over the probability of the occurrence of many cases in Iowa during the summer and fall of 1928. Physicians in general and health officers in particular—especially of those communities where there has been a case of the disease this fall, should be on their guard with the idea of recognizing cases early and of preventing the spread of the condition.

*Whooping Cough* is still with us, especially in the northern two-fifths of the state. We expect a lessening in the number of cases soon.

*Smallpox* continues to prevail in Boone and Audubon counties.

*Influenza*—There are reports from many communities regarding a readily communicable but very mild form of influenza. These cases are seldom reported to the State Department of Health, due, no doubt, to the provision of the law which makes influenza a quarantinable disease. That provision was inserted soon after the serious epidemic of 1918. The law should be changed. A placard is sufficient.

*Common Cold*—We regard the common cold with more concern than most people do and accordingly advise that all persons with colds should be under a physician's care. Physicians can assist very materially in preventing the spread of colds by, on all appropriate occasions, teaching and preaching that: (a) Colds are communicable and to a large extent preventable. (b) Colds and many other communicable diseases

will become less prevalent if everyone observes the two well recognized rules of hygiene of *always covering the nose and mouth with a handkerchief when sneezing and coughing and always washing the hands with soap and water before eating.*

*Typhoid Fever*—An outbreak of ten cases with three deaths occurred in Fairfield during August.

*Diphtheria* continues to prevail in moderate amount. The educational program carried on by the Department ought to be of material assistance to physicians in getting the children of their clientele actively immunized with toxin-antitoxin.

Campaigns, having in mind the immunization at one time of large groups in a community, are of tremendous help in the educational programs. Any campaign fostered by this Department does not mean that we in any way wish to advocate any form of state medicine. To such the Department is strongly opposed. We also firmly believe that the intimate relation which the family physician has with his patients should be not only maintained but strengthened.

The Department accordingly does all that it can to have all immunizing treatments given by the family physician. During campaigns, physicians as represented by the organized medical society often prefer a plan of divided or rotating service.

We believe that the position of the family physician would be greatly strengthened in his place in the community, if every physician would at this time, and from this time on, say to the parents of every baby of six months or older that *now* is the time to be immunized against diphtheria. Parents should also be told that every child should be vaccinated against smallpox when two to three years of age, earlier, if there is smallpox in the community. Revaccination should occur every five to seven years until fourteen years of age and thereafter whenever exposed.

Do not wait for the parents or health officer to take the initiative. There will be no compulsion in the suggestion and fair and right minded persons will certainly appreciate that it is not being done for the purpose of augmenting the physician's income—although he must of course be paid for his work—but for the purpose of protecting his clientele.

*Malta Fever*—Dr. Hardy, director of the State Hygienic Laboratory (Iowa City) reports that there is seldom a week when they do not give a positive report on a new case of this new

(for Iowa) disease. The article on the subject in the September number of this Journal is well worth reading.

*Scarlet Fever*—This year witnessed a considerable increase in the number of cases of scarlet fever in Iowa. Most of the cases have been rather mild and the mortality has been rather low. There is a seasonal increase of scarlet fever during the fall of the year. We now have biological preparations of value for both the prevention and the treatment of this disease.

Dr. H. R. Sugg of Clinton and a member of the State Board of Health has had considerable experience with the treatment and management of scarlet fever cases. He contributes the following important summary of our knowledge concerning them:

#### TREATMENT AND CONTROL OF SCARLET FEVER

"Nothing in the treatment of disease is more brilliant than the rapid subsidence of all symptoms in scarlet fever cases treated early with scarlet fever antitoxin. These exceptional results are obtained however, only by early use of the serum, the earlier given the more brilliant the results; viz., twelve to forty-eight hours after onset. Given after the third day, it may help, but you cannot expect the rapid subsidence of symptoms that occurs when given within twelve to forty-eight hours from onset. The early treated case is convalescing at the end of twenty-four to forty-eight hours. Again, a secondary adenitis is more likely to develop where serum treatment has been delayed for more than three days after onset of the disease. One therapeutic dose is usually sufficient, but a second dose should be given at the end of twelve to twenty-four hours if indicated. If the case has previously had horse serum or is known to be particularly susceptible to horse serum protein, then he should be desensitized. The method of desensitization advocated by Doctor Rhodes (of the Doctors Dick) is as follows: viz., dilute the scarlet fever antitoxin one-half with sterile salt solution. Administer 1/10th of 1 c.c., 1/2 hour later 2/10ths of 1 c.c., 1/2 hour later 4/10ths of 1 c.c., 1/2 hour later 1 c.c. of the diluted mixture, 1/2 hour later 1 c.c. of the straight scarlet fever antitoxin, and 1/2 hour later the therapeutic dose.

"In my opinion every case of scarlet fever, mild or severe, should be serum treated. Many of the serious cases will die without it and even the mild ones should have it to prevent complications.

"The use of antitoxin however, does not lessen the period of quarantine. A certain proportion

of the serum treated cases give positive cultures at the end of twenty-eight days, but the per cent is much less than in untreated cases.

"The handling of 'contacts' is a problem. Formerly we gave 'contacts' a prophylactic dose of antitoxin. Experience has shown that the immunizing effect of the antitoxic serum wears off in about twelve days, so if the 'contact' continues to be exposed to the case it may contract the disease after the effect of the prophylactic dose has worn off. It then becomes necessary to give a therapeutic dose with an almost certain resulting serum sickness. The best method is to keep your 'contacts' separate, and start at once the more permanent immunization with scarlet fever toxin, always remembering that the 'contact' may develop scarlet fever before immunization has been established and will require then the administration of a therapeutic dose of scarlet fever antitoxin.

"Experience shows that when cases are removed to an isolation hospital or the exposed susceptibles to a non-infected home, the number of secondary cases is negligible as compared with leaving them in the same home as the case. If the case is removed to an isolation hospital, all 'contacts' should be quarantined for one week. If at the end of one week they show no evidence of developing scarlet fever, they may be released. The 'contacts' removed from the infected home must also observe quarantine in their new location for one week to determine whether or not they have become infected. The general administration of scarlet fever antitoxin in prophylactic doses should be discouraged (there are, of course, exceptions to this rule). First, because the scarlet fever antitoxin gives only a brief immunity and the 'contact' may later develop scarlet fever. Second, because of the disadvantage in unnecessarily sensitizing individuals to horse serum. Third, because the administration of a prophylactic dose of scarlet fever antitoxin to a 'contact' may result in endangering the public by releasing an already infected individual who, were it not for the prophylactic dose, would probably have developed clinical scarlet fever within twenty-four hours.

"Even where it is impossible to remove 'contacts', they should be separated from the case as much as possible, put under observation, and scarlet fever antitoxin (therapeutic dose) administered on the first evidence of the disease.

"While 'contacts' are under observation they should receive the Dick test and if positive should be given forthwith scarlet fever toxin to obtain a more permanent immunity.



"Scarlet fever cases, serum (antitoxin) treated, do not acquire as lasting immunity as do untreated cases. This is particularly true of cases receiving the serum early in the disease. Hence all such cases should have the scarlet fever toxin treatment to obtain the desired immunity. The end of the quarantine period is the best time to give the scarlet fever toxin treatment.

"Cases so treated, should be Dick tested two weeks following the last dose. If the case still is positive, it should receive a repetition of the last dose given. If more than two weeks elapse after the last dose was administered, it will probably be necessary to graduate the dosage, as was first done, before repeating the final and maximum dose."

#### RELATION OF THE HEALTH DEPARTMENT TO THE PRACTICING PHYSICIAN

The article on this subject which appeared in the September number of this Journal was not intended to be comprehensive. It dealt simply with overlapping or borderline activities concerning which difficulties have arisen in some parts of the United States.

The fine every day co-operative relations having the prevention of disease the aim of all were scarcely touched.

September 19, 1927.

#### MALTA FEVER IN IOWA\*

A. V. HARDY, M.B. (Toronto), C. S. LINTON, M.S. and T. M. DeCAPITO, B.S.

Malta Fever is not uncommon in Iowa. This conclusion seems inevitable in the light of recent findings made at the State Hygienic Laboratory. In four months, June to September, 1927, blood from nineteen patients was found to agglutinate *Brucella melitensis*, the organism of Malta Fever. In twelve cases, confirmatory tests have been done and the titre on both examinations was 1:160 or higher. These may be accepted as proven cases of Malta Fever. The blood of three others gave an agglutination titre sufficiently high to be diagnostic, but one examination only was done. These should be accepted as probable cases of Malta Fever. The remaining four gave agglutination in a titre of less than 1:80. Two only of these were confirmed by a repeated examination. The significance of these weak reactions is not clear, but a further study of such cases is indicated.

A summary of the thirteen known cases which have occurred in the state is given in Table I. Of greatest significance is their distribution. The disease is apparently present in all parts of the state. This is as one would expect, since the source of the human infection lies in those animals suffering from the disease commonly known as "Infectious Abortion". This condition is widely spread, affecting animals in almost every community in the state. Physicians should remember, therefore, that their patients have probably been exposed to Malta Fever.

Of interest also is the fact that six cases were diagnosed in September. The probable reason for this is shown in Table II. During June, July and August the wet Widal's only were examined routinely for Malta Fever. During September all dried bloods were also tested. Final conclusions cannot yet be drawn as to the reliability of this last method. It is interesting, however, that three of the six proven cases found in September were detected first in the dry Widal's. It appears then that the number of cases diagnosed, depends directly on the number of laboratory tests made. Craig emphasizes this when he writes "There are no pathognomonic symptoms of Malta Fever. The symptoms observed are so inconstant and confusing that no one of them can be said to be typical of the disease. A differential diagnosis is almost impossible in the majority of cases without the aid of the microscope and the serum test." In no other disease is the agglutination test of greater value.

Of sufficient importance are our findings that the United States Public Health Service has agreed to assist in a further investigation of the disease in Iowa. Only through the interested co-operation of every physician practicing in the state can this be effectively carried out. First in importance is the detecting of the cases. The true prevalence can be determined only when every case is diagnosed. If from all patients with a fever for one week or more, blood were sent for the agglutination test, there would be few undiagnosed cases of Malta Fever. Physicians are therefore requested and urged to send blood, either dry or wet to the laboratory. All received at the State Bacteriological Laboratory will be examined for Malta Fever. The branch laboratories are asked to forward to us all bloods received and examined by them for typhoid. A similar request will be made to private and hospital laboratories. In this way it is hoped that cases will not be missed.

With the aim of determining the source of the infection and its mode of spread, most, or all

\*From the State Bacteriological Laboratory, Iowa City, Iowa.

TABLE I  
Cases of Malta Fever Which Have Occured in Iowa

Date	Physician	Patient's Address	County	Patient	Titre
Dec 11	L. R. Woodward	Mason City	Cerro Gordo	H. S.	1:1280
June 16	University Hospital	Lennox	Taylor	A. L.	1:640
June 25	H. R. Pascoe	Carroll	Carroll	Y. C.	1:1280
July 20	Doctor Jewell	Coon Rapids	Carroll	R. B.	1:320
July 26	C. M. Coldren	Milford	Dickinson	J. B.	1:320
Aug. 18	H. R. Pascoe	Carroll	Carroll	P. G.	1:1280
Aug. 29	J. S. Weber	Davenport	Scott	E. B.	1:320
Sept. 2	C. R. Smith	Onslow	Jones	L. I.	1:320
Sept. 15	University Hospital	West Bend	Palo Alto	W. P.	1:640
Sept. 17	C. E. Shepherd	Le Mars	Plymouth	C. M.	1:1280
Sept. 22	P. M. Herny	Prairie City	Jasper	W. P.	1:160
Sept. 27	F. A. Gillette	Oskaloosa	Mahaska	R. P.	1:160
Sept. 28	J. E. Kimball	West Liberty	Muscatine	J. E.	1:320

proven cases will be investigated by the state epidemiologist. It is hoped that at this time a complete clinical record may be obtained. At present little is known of the epidemiology of Malta Fever, and a field study of the cases should yield valuable information. This, however, can accomplish its aim only with the assistance of the attending physician. These investigations are made possible by the United States Public Health Service.

Less than one year ago the first case of Malta Fever was diagnosed in the state. Now we know it is widely spread and probably not uncommon. A careful study is very timely and the co-operation of each physician is invited in making this accurate and complete.

TABLE II  
Agglutination Tests for Malta Fever Done at State Laboratories

Month	Total Examinations	Total Positive Agglutinations	Confirmed Positive Cases
June	32	4	2
July	27	5	2
August	37	3	2
September	211	22	6
	307	34	12

NEW STEP IN INTERNATIONAL RELATIONS OF PHYSICIANS

The cordial relations of the physicians of America, North and South, and their colleagues of the Old World were further expressed by the appointment of American representatives to the editorial cabinet of the Acta Dermato-Venereologica published under the direction of Dr. Johan Almkvist of Stockholm, Sweden. The nominees are: Howard Morrow of San Francisco, Howard Fox of New

York, J. B. Shelmire of Dallas, D. R. Smith of Toronto, Pardo Castello of Havana, and Herman Goodman of New York.

The Acta-Dermato-Venereologica publishes original contributions in French, German, or English within the fields of dermatology, urology, and social hygiene, and items of interest of persons or progress in these specialties.

American literary contributions should be addressed to Dr. Herman Goodman, 18 East 89th Street, New York City.

MEDICAL DIRECTORS NO LONGER EXEMPT FROM INCOME TAXES

The compensation received by a medical director of a state or county hospital is no longer exempt from income taxes, under a ruling just announced by the Income Tax Department, according to M. L. Seidman, tax expert of Seidman & Seidman, certified public accountants.

"Heretofore", Mr. Seidman explained, "the law used to be that a medical director in the position mentioned need not pay any income taxes on his compensation since he was a state employee or the employee of a subdivision of a state, and the salaries of such employees were exempt from tax. Under the 1926 law, the further requirement was added that the employment be in connection with an essential governmental function. It is now held by the Income Tax Department that operating a hospital is a proprietary rather than a governmental function, and hence the department concludes that the compensation of a medical director is subject to tax under the present law.

"The probabilities are", Mr. Seidman added, "that this ruling will be contested, for there is a serious doubt whether conducting a hospital is purely proprietary. The contention may be made that the state wishes to safeguard life as well as property, and maintaining a public hospital could therefore be regarded as an essential governmental function".



# The Journal of the Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

## Publication Committee

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

## SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII November, 1927 No. 11

## PROBLEMS IN MEDICAL EDUCATION AND MEDICAL PRACTICE

We never open a magazine—lay or medical—that we do not read of problems, mostly problems involving continued prosperity, more development, more expansion, more money. How most extraordinary conditions may be continued is the problem. There is a more or less disguised fear that present extraordinary conditions cannot always continue. To the man interested in medicine, the problems, the fears, assume different forms but appear in parallel lines. How much can be used in constructing buildings and in medical education before the limit is reached? The great majority of young men who enter upon the study of medicine have in mind the gaining of a living, and the problem is, can the practice be made profitable considering the investment made in securing a legal right to practice?

A thoughtful man entering upon a business will inquire if the profits realized will bring an adequate return on the capital invested, and also how may the capital be secured. An editorial in a recent number of the Journal of the American Medical Association shows that "each student enrolled in these sixty-three medical schools paid an average of \$254, whereas the actual cost of furnishing his education was \$705." The difference therefore between what the student paid of \$254, and the actual cost of \$705, or \$451,

was paid by the institution in cash or the equivalent of cash. In the case of the State University Medical Schools, by the state. This is the contribution the state makes to the benefit the state receives from a highly trained medical corps. May it ever come about that the state which makes such a liberal contribution demand a greater service on the part of the medical profession? To relieve the profession of such possible demands, may it be possible for the medical student to pay for his own education?

In ten schools fees range from \$350 to \$550. The editor asks, "How much higher should the student's fees be advanced, or have they not already reached excessive proportions?" This is a problem. Is it really necessary that the average medical education should cost so much? There can be no question that the training of young men for research work needs all he gets now, and more, but how about the average practitioner who never uses this advanced work in his daily practice. There is no doubt that the specialist must have special training beyond what is required by the most approved undergraduate course. The problem in business and industries is to bring the cost of operation within the limits of production and profit. It is painful to think of measuring the standards of medicine by the standards of business, but how can it be otherwise? If all applicants for medicine were rich, or all were willing to work for the sake of work and gave no thought to financial obligations and duty, all such reflections would be unnecessary. We are not prepared to offer suggestions, only that we have problems which are not easily solved by educators who are likely to see the solution in the direction of deeper and more profound learning which has such small salesmanship value.

These reflections are suggested by the apparent views of the medical practitioners we come in daily contact with. The serious problem is how to secure a living. We are well aware that the public expects much of the medical profession, much in the way of skillful diagnosis and treatment, much in the way of research in discovering means for prevention of sickness. There is a great field for study and investigation concerning conditions of life after men are fifty or sixty years of age. We do not feel competent to express very definite views on medical education and feel quite safe in leaving this difficult subject to the able agencies who have this subject in charge, but we feel it is quite legitimate to engage in a general discussion. We cannot avoid the impression that a medical educa-

tion should be adjusted in accordance with the needs of the public. If it is true that 90 per cent of sick patients should be treated by the family physician, then it is his needs we should be most solicitous about.

#### HISTORY OF MEDICINE IN MICHIGAN

The medical profession of Michigan is preparing for a medical history of that state, under the title, "Physicians With the Early Explorers and Adventurers".

Dr. C. B. Burr, of Flint, Michigan, writes an introductory note. "The Indians in the vicinity of St. Joseph's River, Lake Michigan, were visited by Father Marquette in 1675. La Salle built a fort at the mouth of the river in 1679. (Fuller's Historic Michigan.)"

It is said that Champlain was accompanied by a surgeon on his westward wanderings, 1611-1618.

Of the Northwest Territory, Michigan is the oldest, and on account of its location, reached by the St. Lawrence River and the Great Lakes was open to early exploration from Quebec. Many stories of exploration and adventure have been written. Michigan has become a land of romance. Many French explorers and Catholic Missionaries passed back and forth on land and water in earlier years, therefore the medical historian of Michigan has much interesting material. Iowa was once a part of Michigan Territory, but not until 1820 was much known beyond the Mississippi River. Although Iowa was a part of Michigan, we only know that Doctor Brown of Detroit, a member of the Territorial Legislature, or Mr. Schoolcraft, first gave the name of Iowa to a part of Michigan Territory bounded by Lake Michigan on the east, Illinois on the south, Mississippi River on the west and Wisconsin River on the north, with Mineral Point as the capital, which later became Wisconsin Territory.

With material of medical interest in Iowa we have been able only to go back to 1820, to the time of Doctor Muir, an army surgeon. We now have ready for binding, a history of the first seventy years of medicine in Iowa. With the early medical history of Illinois ready for distribution, with a second volume to follow, and with an extension of the Iowa medical history, and we hope in the near future, a medical history of Wisconsin and Minnesota, we should have a medical history of Michigan Territory and of Illinois. We trust that the medical profession of this great territory will become interested.

#### THE NEW DEAN OF MEDICAL DEPARTMENT, IOWA STATE UNIVERSITY

Dr. Henry S. Houghton of the Union Medical College of Pekin, China, has been appointed Dean of the College of Medicine of the University of Iowa. Doctor Houghton graduated from the University of Ohio, taking the degree in philosophy in 1901, and graduated in medicine at Johns Hopkins University in 1905.

The Union Medical College of Pekin started as a missionary enterprise, but by the union of the Rockefeller Foundation and Harvard University, aided by a group of American medical men, secured some \$12,000,000, and organized a great medical school in China. Doctor Houghton has had much to do with the work of this institution and in coming to Iowa University will co-ordinate all the hospital units and serve as dean of the medical school. He will not engage in private practice, but devote all his time to administration work, for which his experience well fits him.

#### IOWA STATE UNIVERSITY SCHOOL OF MEDICINE

The reports of the University School of Medicine are to the effect that the registration this year is greater than at any other year. The settled policy of the University authorities seems to have inspired confidence in the future of the school. We are informed that the registration this year is 452, four in excess of last year, divided as follows: Freshmen 135, sophomores 120, juniors 98, seniors 99. Freshmen have gained 6 members, sophomores 18, juniors lost 46 members, seniors gained 23 members. According to this division the department has gained 47 and lost 46.

#### BACKACHE IN WOMEN

Statistics show that backache leads as a predominant symptom which results in a visit to the gynecologist; it is such a predominant symptom in 18 per cent of the cases. Discharge accounts for 15 per cent, low abdominal pain for 11 per cent and excessive flowing for 10 per cent.

Derangement of the pelvic organs are important in the cause of low backache. Circulating disturbances, associated with displacement of the womb, causes backache. Pressure is the basis, the forward displacement, cervicitis and incarcerated pregnant fundus are also causes, but are not always true symptoms. Dysmenorrheas complain of backache, representing perhaps the only group consistently associated with definite gynecological conditions.—International Medical Digest.



## ANNUAL FALL CLINICAL MEETING

Physicians of Illinois, Missouri and Iowa are invited to attend the annual fall clinical meeting of the Adams County Medical Society to be held in Quincy, Illinois, Monday, November 14th.

Jabez N. Jackson, L.L.D., F.A.C.S., President of the American Medical Association and formerly president and professor of clinical surgery, University Medical School, will be a guest of honor and will take part in the program and clinics.

Richard L. Sutton, M.D., Sc.D., L.L.D., F.R.S., professor of dermatology, University of Kansas School of Medicine and William W. Duke, Ph.D., M.D., F.A.C.P., formerly professor of experimental medicine, University of Kansas School of Medicine are on the program and will hold clinics.

The names of the above men speak for themselves. These physicians are not only leaders in their specialty in Kansas City, but have international reputations for their contributions. With a surgeon, dermatologist and internist on the program, both morning and afternoon, every physician is assured enough variation of subjects to hold his attention.

The program will include clinics from 9:00 to 12:00 and from 2:00 to 5:00. A splendid banquet and evening entertainment are also being provided.

The meetings will be held in the Elks' Club Hall, at 4th and Jersey Streets, Quincy, Illinois. Physicians from other states or counties are invited to take advantage of this all day clinical meeting.

## HOSPITAL FOR VETERANS' BUREAU

Brigadier-General Frank T. Hines, director of the Veterans' Bureau, has just been advised that every one of the fifty-two hospitals maintained and operated by the bureau has been fully approved by the American College of Surgeons which is the criterion in matters of this kind in the United States.

The Veterans' Bureau hospitalization program is the largest in the world, and attainment of this high standard throughout the service is one of the outstanding features of the present administration of the Veterans' Bureau.

In announcing to the director the full approval of these institutions Dr. M. T. MacEachern, director of hospital activities of the American College of Surgeons, took occasion to acknowledge "the whole hearted support of the director and his staff and the personnel in the various hospitals considered", as contributory factors in attaining the 100 per cent mark.

Doctor MacEachern stated that, "in no other part of the entire hospital field has the American College of Surgeons received better co-operation than in its dealings with the Veterans' Bureau in this respect, and we are very proud, indeed, to have your hospitals on our approved list".—Indianapolis Medical Journal.

## LENGTHENING LIFE

Two and one-half years has been added to the average of human life within the last decade.

In addition to the improvement in general health a still more startling advance has been made in regard to tuberculosis, the death rate having been lowered 55 per cent since the tuberculosis campaign supported by the sale of Christmas seals began.

Life insurance actuaries attribute this saving of human lives largely to the work of anti-tuberculosis agencies.

In 1925 the infant mortality rate increased one per 1000 live births over 1924 in Iowa counties having no public health nursing service and decreased 3 per 1000 in counties having such service, according to a bulletin of the State Department of Health.

In counties having both public health nursing service and general use of the Modern Health Crusade system of health training in schools or its equivalent, according to figures compiled by the Iowa Tuberculosis Association, physical defects among school children decreased over a four-year period as follows: Teeth defects, from 60 per cent to 36 per cent; tonsils and adenoids, from 55 per cent to 14.5 per cent; underweight, from 60 per cent to 20.7 per cent; vision, from 12 per cent to 8.7 per cent; hearing, from 5 per cent to 1.5 per cent.

The annual sale of the Christmas seals is the sole means of financing the tuberculosis work of voluntary organizations. In Iowa the proceeds of the seal sale are used for various local forms of public health work such as nursing service, nutrition classes, the Modern Health Crusade and other health work in the schools, tuberculosis, heart disease, and child welfare clinics, open air schools, free dispensaries and permanent clinics, milk lunches for school children, instructions for mothers in the care of babies, prenatal care, fresh air camps, distribution of health literature, exhibits and other means of health education.

The twentieth anniversary seal depicts Santa Claus in a gift-laden sleigh driving reindeer over a snowy field. At the right rear is a clump of evergreen trees partly obscured by the design of the red double-barred cross, the symbol of the international tuberculosis crusade. The color scheme is red, green, blue, brown, and white. Although the size of the seal is the same, the shape differs from previous years being longer in the horizontal direction. The legend is "1927 Christmas greetings and good health".

Twenty-five million penny Christmas seals distributed throughout every county in the state by the Iowa Tuberculosis Association are offered for sale by local committees in every town and school district during the twentieth annual seal campaign which extends from Thanksgiving to Christmas.

This quantity, if the seals were laid side by side, would extend from Omaha to Chicago or make a belt across the state in both directions. Translated

into human lives it is estimated that the work accomplished by Christmas seal funds in the field of tuberculosis prevention alone represents a saving in this state of 950 lives annually. Translated into dollars statisticians estimate that the money value of the public health work done by the State Tuberculosis Association, its affiliated county and local health organizations and co-operating agencies represent a money saving of \$744,000 a year in Iowa.

The proceeds of the seal sale are used by the local associations in various forms of child health work, nursing, weighing and measuring, health education, fresh air camps, clinics, dental inspection, school health supplies such as scales, first aid kits, thermometers, posters, books, etc., and a portion by the State Association in the prevention of tuberculosis both in humans and animals, in the discovery and prevention of heart disease, and in general health work.

This is the twentieth annual Christmas seal sale. During this period in which the money thus raised has been used in preventing disease and promoting health the tuberculosis death rate has been reduced 55 per cent, infant mortality 20 per cent and the general death rate 10 per cent. (Edwards).

### UNJUSTIFIED OPERATING ON WOMEN FOR SUPPOSED TUMOR

(Thorning, et al. vs. Boriski, et ux. (Texas), 283 S. W. R. 912)

The Court of Civil Appeals of Texas, in affirming a judgment for the plaintiffs, Boriski and wife, says that the defendants were members of a partnership engaged in the practice of medicine and surgery, and in February, 1923, one of them performed an abdominal operation on Mrs. Boriski. Some time in June, 1922, the woman had suffered a miscarriage and soon thereafter became pregnant again. About December 15, being troubled with pains in her abdomen and some occurrences of flooding, she consulted one of the defendants. He and his associate, who afterward performed the operation, each made an examination, using bimanual and palpation methods. They told her that she was afflicted with fibroid tumors—a large one and two small ones—and advised an operation at an early date. They also discovered that she was pregnant, but concluded that it was of only about two months' duration. Two weeks later she and her husband again consulted the operating surgeon, and were again advised by him that an operation was necessary and that the sooner it was performed the better it would be for her. February 2, she went to the hospital and submitted to an operation. The operating surgeon admitted that his diagnosis had been incorrect, that he had been deceived by the contractions of the uterus, which he mistook for tumors. He testified that after making the incision he discovered that the patient was in an advanced stage of pregnancy. He said that he did not ex-

amine the patient while she was under the anesthetic and before he operated on her. It was not denied that because of her condition the flesh failed to reunite after the operation, and that a continued hernia existed at the time of the trial. It was also conceded that the evidence showed that to relieve that condition another operation would be required.

This suit was filed to recover damages which were alleged to be due to negligence in performing an unnecessary operation. The specific acts of negligence charged were: (1) acting too hastily, and failing to keep the patient under observation for a longer period of time; (2) failing to use the stethoscope or the roentgen ray in diagnosing her condition; (3) failing to use tests known as reperussion and ballottement; (4) failing to make a physical examination just before the operation and while the patient was under the influence of an anesthetic. In answer to special interrogatories, the jury found that the defendants were negligent in failing to discover the true condition of the patient and in advising an operation.

While an erroneous diagnosis leading to an unnecessary operation is not usually a legal basis for damages, there are occasions when it may be such. There was testimony in this case which justified the conclusion that a further examination of the patient would have revealed her true condition and would have enabled the attending physicians to correct their original diagnosis. The court thinks that the jury had a right to conclude that the failure of the defendants to make further examinations before operating was a lack of that degree of care which should have been exercised under the circumstances.—The Journal of the A. M. A.

### HONOR TO McDOWELL AND CLAY

A distinguished and philanthropic citizen of Louisville, Kentucky, Mr. I. W. Bernheim, has made it possible for Kentucky to be represented in the Hall of Fame in the Capitol at Washington by statues of two of its most distinguished citizens. The general assembly created a commission consisting of President McVey of the University of Kentucky, President Colvin of the University of Louisville, and President Hutchins of Berea College. They have taken the time to consider the matter carefully, and, after corresponding with representative people not only in Kentucky but also distinguished Kentuckians who live elsewhere, they have selected Ephraim McDowell and Henry Clay. The Journal congratulates the state and the commission upon these wise selections. Those familiar with the history of Kentucky and of mankind recognize in the "Father of Ovariectomy" and the "Great Compromiser" the two of our citizens who have contributed the most to human welfare. It is good for the nation that the story of these two great lives shall be kept before them.—Kentucky Medical Journal.



UNITED STATES LEADS IN PROPRIETARY MEDICINE

The United States is the world's largest producer, consumer and exporter of prepared medicines, according to a report just made available by the Department of Commerce. The value of "patent medicine" and druggists' preparations manufactured in this country in 1925 was nearly \$320,000,000, and \$20,000,000 was the value of exports. The total import trade of the world in medicinals was \$110,000,000, of which two-thirds represented prepared medicines and medicinal specialties. British exports were 66 per cent of those of the United States, French exports 60 per cent, while German shipments were approximately 50 per cent of those of the United States. Eighty per cent of the drugs exported from the United States go to fifteen English and Spanish speaking countries. The figures presented by the Department of Commerce help to correct some impressions heretofore prevailing relative to this trade. It has long been thought that Germany dominated the proprietary medicine markets of the world. Evidently the United States had progressed greatly in this field since the World War. Unfortunately, the scientific value of the products has not been demonstrated in most instances to be wholly meritorious. One may well wonder how much of this trade includes drugs without merit and "patent medicines" that are harmful.—Journal A. M. A.

HOSPITALS FOR MENTAL DISEASES

FIRST ADMISSIONS TO STATE HOSPITALS FOR MENTAL DISEASE

Division and State	No. of Institutions:	First Admissions During the Year			
				No. per 100,000 of general population*	
		1926	1922	1926	1922
Total 30 states	105	36,936	34,362	47.3	46.8
West North Central:					
Iowa	5	922	939	38.1	38.9
Missouri	4	1,209	1,139	34.6	33.1
North Dakota	1	236	242	36.8	37.6
South Dakota	1	201	168	29.2	25.5
Kansas	4	677	632	37.2	35.3

\*Based on the estimated population for July 1.

PATIENTS IN STATE HOSPITALS FOR MENTAL DISEASE ON JANUARY 1

Division and State					No. per 100,000 of General Population*	
	Jan. 1, 1927	Jan. 1, 1926	Jan. 1, 1923	Jan. 1, 1922	1927	1923
	1927	1926	1923	1922	1927	1923
Total 30 states	178,353	173,602	161,566	156,454	226.9	218.5
West North Central:						
Iowa	5,346	5,216	5,002	4,823	220.5	207.2
Missouri	5,706	5,676	5,242	4,970	162.8	152.2
North Dakota	1,400	1,337	1,269	1,245	218.3	197.0
South Dakota	1,317	1,300	1,207	1,180	190.0	182.3
Kansas	3,697	3,593	3,295	3,168	202.7	183.6

\*Based on the estimated population for January 1.

U. S. PUBLIC HEALTH SERVICE

Sanitary Engineer H. W. Streeter. Directed to proceed from Cincinnati, Ohio, to Ames, Iowa, and return, to attend the Iowa Conference on Sewage Treatment to be held November 1-3.

Surgeon W. C. Rucker. Directed to proceed from New Orleans, La., to Minneapolis, Minn., and return, to attend the annual meeting of the American Hospital Association to be held October 10-14.

Boards Convened:

A board of officers convened to meet at New Orleans, La., at the call of the chairman, to investigate charges preferred against an Assistant Surgeon of the Regular Corps.

Detail for the board: Senior Surgeon John McMullen, Surgeon W. C. Rucker, Surgeon M. F. Haralson.

THE COST OF MEDICAL CARE

How many people with cancer are there in the United States who are not able to pay for the medical care which they require? To how many are facilities for free treatment available? To what extent are cancer patients able to pay for the medical attention which they require? These are questions for which there are as yet no answers.

An organization was formed at Washington on May 17, 1927, to make a thorough investigation of the availability of medical care for those who need it because of cancer and other diseases. It is hoped that within five years information of much practical value may be collected. The work of the committee promises to be of far-reaching consequence. The new organization is called "The Committee on the Cost of Medical Care".

The first meeting was called a "Conference on the Economic Factors Affecting the Organization of Medicine". It was attended by sixty physicians, sanitarians, economists and "other persons representing the general public". Dr. George A. Soper, managing director of the American Society for the Control of Cancer, was one of those who were invited to be present. The following persons subscribed their names to the call for the meeting: Lewellys F. Barker, M.D., William Darrach, M.D., Michael M. Davis, Ph.D., Walton H. Hamilton, Ph.D., J. Shelton Horsley, M.D., John A. Kingsbury, C. C. Pierce, M.D., W. S. Rankin, M.D., W. C. Rappleye, M.D., Winford H. Smith, M.D., John Sundwall, M.D., Edgar Sydenstricker, L. R. Thompson, Ray Lyman Wilbur, M.D., Prof. C.-E. A. Winslow, H. H. Moore.

An account of the meeting is given in the "Survey" of June 15, 1927, under the heading, "The Cost of Medical Care", by Haven Emerson, M.D., professor of public health administration, Columbia University, and a member of the executive committee of the American Society for the Control of Cancer. Inasmuch as the best possible medical at-

tention is required for persons suffering with cancer, and in view of the fact that the State of Massachusetts has found that cancer clinics in all of the principal cities of the state are required to provide this attention, the proceedings of the Washington meeting have special interest for our readers.

Dr. Louis I. Dublin, in an address, stated that the Bureau of Labor Statistics gave the cost of medical attendance as \$60 per family per year. Detroit's family welfare agency found workmen's families paid \$80. The employees of the Metropolitan Life Insurance Company also paid \$80 a year for medical attendance. It was estimated that of the 70,000 million dollars of our annual income from all sources 3,000 to 4,000 million are spent on illness, including payments to physicians, dentists, hospitals, nurses and druggists. Apparently the physician gets half of this amount; dentists about 20 per cent; druggists and instrument makers another 16 per cent for medicines, dressings, and various appliances; hospitals 7 per cent; nurses 5 per cent. As a result, baffling problems connected with diagnoses, long illnesses, and surgical costs occur. It is estimated that 10 per cent of the treatment of the sick is now carried on in dispensaries throughout the country.

The family incomes from which the cost of illness must be paid were surveyed in a paper by Dr. Leo Wolman who stated that 67 per cent of our population had family incomes of \$1,450 a year or less and only 6 per cent had incomes of \$2,900 or more. He found that 90 per cent had annual incomes of less than \$2,000.

#### COMMITTEE ON CANCER ACTIVITIES

1. The committee recommends the adoption by the executive committee of the following resolutions:

Resolved, that it shall be a major objective of the Society for the Control of Cancer to promote the development of clinical facilities for the diagnosis and treatment of cancer and the establishment of standards for the operation of institutional centers which shall be in accord with the best professional knowledge and practice; and

Resolved further, that the clinical facilities so to be promoted shall be limited to two groups—(1) those in connection with general hospitals, and (2) those of special cancer institutions.

II. Resolved, that it shall be a major objective of the Society to develop special educational facilities for professional workers in the cancer field and that in this connection new publications be prepared and distributed by the Society; and

Resolved further, that the Society shall continue, through the organization which it has already set up in the field, its efforts to educate the general public regarding the early symptoms and treatment of cancer.

III. Resolved, that it shall be a major objective of the Society to undertake through its central of-

fice to collect and make available, by publications and otherwise, the widest possible range of information regarding the natural history of cancer as it is found in the United States.

IV. Resolved, that the educational literature of the Society be thoroughly revised at the earliest possible moment.

Respectfully submitted,

Thomas M. Debevoise,  
Haven Emerson,  
James Ewing,  
Curtis E. Lakeman,  
Francis Carter Wood,  
Howard C. Taylor, Ex-officio,  
Committee on Reorganization.

#### SOCIETY PROCEEDINGS

##### Cerro Gordo County Medical Society

The regular meeting of Cerro Gordo County Medical Society was held September 20, 1927. A 6:30 dinner at the Cerro Gordo Hotel, with twenty-one members present.

Usual order of meeting and a very deliberative discussion of business matters, appointing of committees, and their instructions relative to their duties.

The scientific program follows:

Recent Blood Tests in Syphilis, with a demonstration, by Dr. N. C. Stam.

Relation of Syphilis to Trauma, by Dr. T. E. Davidson.

Discussion, Dr. A. B. Phillips, Dr. G. M. Crabb, closed by Doctor Davidson.

E. L. Wurtzer, Secretary.

##### Monroe, Lucas and Marion County Medical Societies

A joint meeting of the Monroe, Lucas and Marion County Medical Societies, postponed on account of rain and bad roads, from September 29, 1927, was held at Melcher the afternoon of October 13, 1927.

The following scientific program was presented:

Chronic Dyspepsias—J. B. Synhorst, M.D., Des Moines.

The Basic Science Law—S. T. Gray, M.D., Councilor Sixth District, Albia.

The Organizations of Medicine—Channing G. Smith, M.D., Councilor Seventh District, Granger.

A dinner and social hour followed the scientific session. It was planned to make these combined meetings annual affairs. The subsequent one to be held in Chariton with Lucas County Society members as hosts.

C. S. Cornell, M.D., Secretary.

##### Polk County Medical Society

The Polk County Medical Society met for its regular monthly meeting at the Fort Des Moines Hotel, September 27, 1927. The meeting was called to



order by the vice president, Dr. A. D. McKinley, at 7:45 p. m.

The minutes of the previous meeting were read and approved.

Clinical cases were called for but none were presented.

#### Program

The Present Day Treatment of Goitre—O. J. Fay, M.D.

The Relation of Nasal Sinus Infection to Focal Infection—Grace O. Doane, M.D.

Doctor Fay's paper was discussed by Dr. W. L. Bierring, Dr. A. C. Page, Dr. L. D. Powell, Dr. F. W. Fordyce, Dr. Eli Grimes, Dr. J. B. Weingart, Dr. D. J. Glomset, Dr. H. Gray and Dr. C. B. Luginbuhl.

Doctor Doane's paper was discussed by Dr. Chas. Walker, Dr. Ralph Parker, Dr. W. W. Pearson, Dr. D. J. Glomset, Dr. L. Hill and Dr. R. J. Lnych.

The secretary then read a communication from the American Medical Association relative to the radio health programs, and also taking up the matter of articles published in the lay press over the signatures of members of the society. Dr. H. C. Willett moved that the same committee that handled the radio health programs over WHO be designated to serve again this year. Duly seconded and unanimously carried.

Dr. J. S. Weingart spoke in reference to the recent meeting of the Medical Society of the Missouri Valley, and commended the Polk County Medical Society on their attendance and the handling of the meeting.

Dr. Fred Moore spoke a few minutes concerning new plans and policies of the Medical Society of the Missouri Valley, referring to the intention of the Society to abolish the "Medical Herald".

Members present sixty, visitors four. Total attendance sixty-four. Meeting adjourned at 10:10 p. m.

L. K. Meredith, Secretary-Treasurer.

#### Polk County Medical Society

The Polk County Medical Society met for its regular monthly meeting at the Fort Des Moines Hotel, October 25, 1927. The meeting opened at 7:55 p. m. by Dr. Thos. A. Burcham as chairman pro tem in the absence of the president and vice president.

The minutes of the previous meeting were read and approved.

Dr. J. S. Weingart presented a case of Addison's Disease.

#### Program

The Criteria of Malignancy and Their Application to the Management of Cancer in Women—W. E. Sanders, M.D.

Chronic Cholecystitis and Cholesterons—J. B. Synhorst, M.D.

The applications for membership of Dr. Ralph Bowen and Dr. R. H. Kanable were presented to the society and referred to the board of censors.

The following resolutions on the death of Dr. Chas. A. Holloway, written by Drs. E. G. Linn, Robt. H. Crawford and G. A. Huntoon, were read by Dr. E. G. Linn who moved their adoption:

#### Resolutions on the Death of Dr. Charles E. Holloway

Just where the rich prairie lands of Henry County merge in to the wooded country along a running stream, Charles E. Holloway spent the summers of his early years, and from this borderline home he attended the autumn and winter terms at the little frame school house not far from his father's farm.

With a farm boy's longing to accomplish for himself, he qualified for a medical career and entered the Medical Department of the State University at Iowa City. After two years at the State University, he took a year in Hahnemann Medical College, Chicago, from which institution he received his degree in 1893.

He entered immediately upon the practice of his profession at Knoxville and after three years came to Des Moines, where for thirty-one years he has been greatly esteemed and respected.

In the homes of a large number of Des Moines people, Dr. Holloway has, throughout all these years, been known and loved as the family physician. On the coming into the sick room of this quiet, modest, unassuming man, this large group of Des Moines homes have rested easily, in the firm conviction that they would be treated skillfully and that he represented medicine at its best.

In surgery, Doctor Holloway was recognized as a very careful, capable operator and many physicians placed in his hands the welfare of their surgical cases.

He greatly valued his membership in his county, state and national societies, and he prized his College of Surgeons' membership very highly.

The confidence of his co-workers he yearned for and earned and this confidence he held in a very remarkable degree. His conclusions were reached after much work and deep study and his convictions were well founded.

Doctor Holloway was essentially a gentleman; he valued the friendship of good men; he esteemed his co-workers and rated them at their worth; if commendation could not be fairly given, he knew how to remain silent.

To interns at the hospitals and the younger physicians, he accorded the greatest respect and in their behalf he was always willing to more than go the second mile.

Because of these commendable and distinguishing characteristics, which he highly possessed, and

Because of the deep respect in which the membership of this Society held the deceased, and further

Because of the great loss which we as his associates have sustained in his passing; therefore

Be it resolved by the Polk County Medical Society in regular session, that in Dr. Charles E. Hol-

loway this Society possessed a member who was esteemed, alike for his integrity, his tireless and conscientious care for his patients, for the judgment he was enabled to exercise after thorough preparation, for the cheery optimism which went with him to the bedside of the suffering and for the fine tracings that pointed him out as a manly man.

Resolved further that in the taking away of Doctor Holloway, this Society has sustained a loss that is distinct and permanent and is felt keenly by the entire membership.

Resolved further that a copy of these resolutions be placed upon the records of this Society and that a copy be sent to the family of the deceased.

E. G. Linn,  
Robt. H. Crawford,  
G. A. Huntoon,  
Committee.

Duly seconded and unanimously carried.

The following resolutions on the death of Dr. A. M. Linn, written by Drs. Erwin Schenk, Alice H. Hatch and W. H. McCartney, were read by Doctor Schenk, who moved their adoption:

#### Resolutions on the Death of Dr. A. M. Linn

Dr. A. M. Linn, who died at his home in Des Moines, August 27, 1927, was born in Pennsylvania in 1855, graduated from Iowa Wesleyan College in 1877, and came to Des Moines in the practice of medicine in 1883. From 1901 to 1910 Doctor Linn served on the State Board of Health. During much of this time he was either president of the board or chairman of the State Board of Medical Examiners.

He was one of our most cherished and respected members. For forty-four years he passed in and out among the sick and well of this city giving comfort and cheer, always ready to make the necessary sacrifice whether the cause were in immediate line with his chosen profession or for the civic and moral good of the community. Many of his patrons grew up under his kindly ministrations and later raised their families supported by his professional guidance. Much untold good is recorded in the Great Book on the life of a man who has lived so completely.

It is fitting, therefore, that his colleagues express their appreciation in this wise that they have these resolutions of esteem spread upon the records of the Polk County Medical Society and direct that a copy be sent to Mrs. Linn and her family.

Erwin Schenk,  
Alice H. Hatch,  
W. H. McCartney,  
Committee.

Duly seconded and carried.

Number of members present sixty-two, visitors seven. Total sixty-nine. Meeting adjourned at 9:40 p. m. L. K. Meredith, Secretary-Treasurer.

#### Medical Society of the Missouri Valley

The annual meeting of the Medical Society of the Missouri Valley in Des Moines, September 14th, 15th and 16th was a great success in spite of the excessive heat. Those who attended the meeting were there to learn what they could. They pulled off their coats and sat the meeting through from beginning to end. Everyone agreed that the program was the best that the Valley has ever had.

One important feature of the meeting was the talk on cancer at the noonday luncheon of the Des Moines Chamber of Commerce by Doctor Barr of Washington University. He gave a very impressive talk which was very well received. Such addresses as this aid greatly in teaching the laity the progress that is being made in the study and treatment of disease, a bit of professional effort well directed in these days of osteopathic and chiropractic activity. It is to be hoped that such a public address will be part of future programs.

At this meeting the Society was re-organized with the adoption of new by-laws. In the future high class scientific programs are the plan, presented in such a way that a meeting of three days will constitute a short post-graduate course. Meritorious work from the eight medical schools in the district will be emphasized.

The states included in the Medical Society of the Missouri Valley are South Dakota, Minnesota, Nebraska, Iowa, Kansas and Missouri.

The following officers were elected for the coming year: President, Dr. Fred Smith, Iowa City; president-elect, Dr. Ralph H. Major, Kansas City; secretary-treasurer, Dr. Earl C. Sage, Omaha.

The next meeting will be in Omaha. In order to equal the rousing reception and the many courtesies extended to the Society in Des Moines it will be necessary for Omaha to put forth a special effort. A better meeting each year is our hope.

Thomas G. Orr, M.D.

#### The Waverly Medical Society

The monthly meeting of the Waverly Medical Society was held at Mercy Hospital, September 14th. The subject for discussion was The Influence of the Ductless Glands.

Doctor Ensley of Shell Rock was a guest of the local physicians. At this meeting a program was arranged for the next regular meeting.

#### HARVEY SOCIETY OFFICERS

At the 1927 meeting of the Harvey Society of New York, Dr. Donald D. Van Slyke was elected president; Dr. James W. Jobling, vice president; Dr. Carl A. L. Binger, secretary; Dr. Haven Emerson, treasurer. Members of the council: Dr. Russell L. Cecil, Dr. Ward J. MacNeal and Dr. David Marine.



## OFFICERS OF THE NATIONAL BOARD OF MEDICAL EXAMINERS

At the annual meeting of the National Board of Medical Examiners, Washington, D. C., May, 1927, Dr. Walter L. Bierring, Des Moines, was elected president. Dr. John S. Rodman, Philadelphia, secretary. Directors: Surgeon General Merritte W. Ireland, Dr. Hugh S. Cummins, Dr. Edward R. Still and Dr. John Whitridge Williams.

## CHICAGO, ROCK ISLAND & PACIFIC RAILWAY COMPANY SURGICAL DEPARTMENT

The twenty-third annual meeting of the Surgical Association of the Rock Island Lines will be held in the Hotel Fontenelle, Omaha, Nebraska, Tuesday and Wednesday, December 6 and 7, 1927.

## PERSONAL MENTION

Dr. Michael G. Wohl, of the Mercy Hospital staff, Council Bluffs, has completed a text book on "Bed-side Interpretation of Laboratory Findings". The C. V. Mosby Company of St. Louis have accepted it for publication. The book will appear shortly after the new year.

Dr. H. M. Austin of Wellman, Iowa, has accepted a position with the Ohio State Department of Health and will assume his new duties about October 15th.

We are informed by the Sioux City Journal, that Dr. J. H. Burlingame is the only surviving pioneer physician in Cherokee County. That he entered Rush Medical College in 1874. After receiving his diploma, he married Miss Patience Jacobs and together they came to northwestern Iowa, where he is to this day actively engaged in the practice of medicine and is no doubt relating to the younger doctors the hardships of pioneer practice and comparing the luxuries of the present day with the trials of his day.

Dr. Jerald J. Bruce has moved to Rolfe to practice medicine. Doctor Bruce is a graduate of the medical department of the University of Nebraska.

Dr. William S. Baer, associate professor of clinical orthopedic surgery in the Medical School Johns Hopkins, has been promoted to professor and Dr. Joseph C. Bloodgood, associate professor clinical surgery has been appointed a professor.

Dr. Richard Kovacs has been appointed director of the new department of physical therapy at the New York Polyclinic Medical School and Hospital. The department will serve for post graduate teaching of physicians and nurses and for clinical work in connection with a general hospital.

Dr. C. E. Ruth, Des Moines, has recovered from his recent illness, and has resumed practice at 718 Equitable building.

Dr. Ira A. Marble, formerly of Blairstown, has moved to Parkersburg, where he will continue in

the practice of medicine. Dr. Marble is a graduate of Michigan University with the degree of A.B. and M.D.

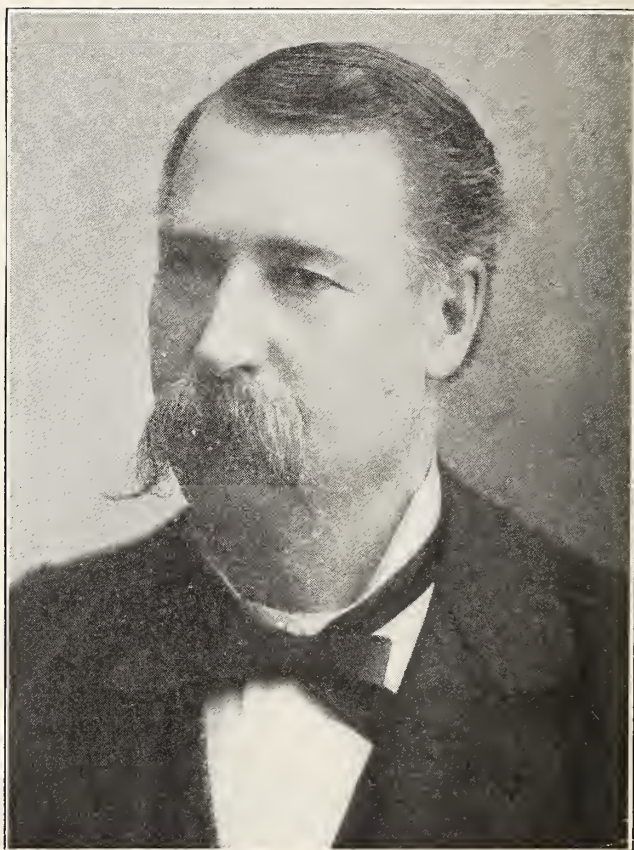
## MARRIAGES

Dr. Ralph Brown of Des Moines and Celestine Elizabeth Vosmek of Cedar Rapids were married at the home of the bride's parents September 7. Doctor Brown is a graduate of the State University College of Medicine.

Dr. Harry F. Hartje of Adair and Miss Clarisse Savage of Des Moines were married at Indianola August 31. Doctor Hartje is a graduate of the medical department of Creighton University.

## OBITUARY

Dr. Vinton Stark Wilcox, who was born in Homer, Licking county, Ohio, October 11, 1848, died at Malcom, Iowa, August 25, 1927. He was the only son of John and Mary Wilcox. At the



DR. VINTON STARK WILCOX

age of six years he started to Iowa. On the way at Wyanet, Illinois, his mother died. His father returned with him to Ohio. The next spring he came to Iowa to live with an aunt. At the age of seventeen he taught a country school.

In 1871 he entered the medical department of the Iowa State University and graduated in 1874. In

1874 he began to practice medicine at Malcom, Iowa, and continued in active practice until 1915, when he retired.

In his student days he was associated with Dr. J. C. Schrader, well known to the older students of the University. Up to the time of his retirement he was an active member of the Poweshiek County Medical Society, the Iowa State Medical Society and the American Medical Association.

In 1872 he married Josephine Hamilton of Tiffin, Iowa. She died in 1914. In 1915 he married Mrs. Ella Davis, who survives him. He is also survived by three children, Dr. Delano Wilcox and Mrs. Henry Wickman of Malcom and Mrs. C. O. Bowers of Cedar Rapids.

Doctor Wilcox lived in Malcom fifty-three years and for forty-one years had been engaged in the active practice of medicine. It fell to Doctor Wilcox to witness the hardships of country practice, which he cheerfully accepted, gaining the respect and confidence of a wide range of patients.

Dr. Percy Walter Swett died July 17, 1927. Doctor Swett was born in Cincinnati, Ohio, October 18, 1870, graduated from the Harvard Medical School in 1893. For two years Doctor Swett practiced in Boston, Massachusetts, at which time he came to Cedar Rapids, Iowa. On March 25, 1895, he married Miss Helen Terwillinger of Ellensville, New York.

## BOOK REVIEWS

### THE DISEASES OF INFANTS AND CHILDREN

By J. P. Crozer Griffith, M.D., Ph.D., Professor of Pediatrics in the Graduate School of Medicine of the University of Pennsylvania, Physician to the Children's Hospital, Philadelphia, and A. Graeme Mitchell, M.D., B. K. Rachford, Professor of Pediatrics, College of Medicine, University of Cincinnati, Director of Pediatric and Contagious Service in the Cincinnati General Hospital. Second Edition, Reset with 461 Illustrations, Including Twenty Plates in Colors. In Two Volumes. W. B. Saunders Company, 1927.

The first edition of this exceedingly valuable work has been exhausted and the accumulation of material has made the preparation of a new edition necessary. The period of time which has elapsed since the appearance of the first edition, and the new material at hand has resulted essentially in the preparation of a new work. Doctor Griffith has worked jointly and independently with Dr. A. G. Mitchell of Cincinnati in utilizing a vast amount of material, which, in the hands of trained and experienced teachers, has been skillfully arranged in two volumes, to the advantage of the medical pro-

fession, which in the last few years had become deeply interested in diseases of children.

Volume One is divided into three sections. Division Two, General Subjects. Section One, Diseases of the Newborn. Section Two, Infectious Diseases. Section Three, General Nutritional and Miscellaneous Diseases.

Volume Two. Section Four, Diseases of the Digestive System. Section Five, Diseases of the Respiratory System. Section Six, Diseases of the Circulatory System. Section Eight, Diseases of the Nervous System. Section Nine, Diseases of the Muscles, Bones and Joints. Section Ten, Diseases of Blood, Spleen and Lymphatic Glands. Section Eleven, Diseases of the Ductless Glands and Internal Secretions. Section Twelve, Diseases of the Skin, Eye and Ear.

It will be observed that a full consideration is given to every subject relating to diseases of children.

## INTERNATIONAL CLINICS

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Medicine, Surgery and Special Branches of Medicine and Surgery. Edited by Henry W. Cattill, A.M., M.D., Philadelphia and C. H. Mayo, M.D., Rochester, Minnesota, Volume One (37 Series).

The first number, Medical Clinics, is by Dr. Lewellys F. Barker of Johns Hopkins; Technic of Medical Diathermy, by Dr. Richard Kovacs of New York. An important paper is by Professor Oswald Bumke of the University of Munich, Germany, on Problems of Paresis, followed by a paper on Modern Social Conditions and the Venereal Disease Problem by Dr. Paul E. Bowers, Los Angeles, California.

A rather interesting discussion is presented as a Basis for a Neuropathic Constitution, by Dr. Pierce Clark of the Craig Colony, New York.

Action of Quinine and Quinidine Upon the Heart, by H. Van Wely, senior physician, Hague Hospital, Holland.

Dr. Francis Harbitz, professor of pathology, University of Oslo, Norway, presents a study on Periarthritis Nodosa.

A review of the Progress of Medicine prepared by Dr. Henry W. Cattell and Dr. James F. Conpal closes the volume.

## MEDICAL CLINICS OF NORTH AMERICA

Volume 10; Number 10; Octavo of 311 Pages With 34 Illustrations. Price Per Clinic Year, Paper \$12.00, Cloth \$16.00, Net. W. B. Saunders Company, March, 1927.

This is a Boston number and contains a considerable amount of clinical material by leading physicians of this great center of medical knowledge.

The first of these important clinics is by Dr.



Henry A. Christian of the Peter Bent Brigham Hospital, on Chronic Diffuse Pulmonary Emphysema; followed by Drs. George R. Minot and William P. Murphy, on Liver Diet in Pernicious Anemia and the Distinction Between Aleukocythemic Myeloid Leukemia and Pernicious Anemia. In looking over this number we are impressed by the extraordinary subjects treated and are at a loss to select particular titles to notice and have only taken the two that first appear in the volume.

#### A MANUAL OF GYNECOLOGY

By John Osborn Polak, M.Sc., M.D., F.A.C.S., Professor of Obstetrics and Gynecology, Long Island College Hospital, Professor of Obstetrics in the Dartmouth Medical School; Chief-Obstetrician and Gynecologist to the Long Island College and Israel-Zion Hospital, etc. etc. Third Edition, Thoroughly Revised, Illustrated with 145 Engravings and 12 Colored Plates, 402 Pages. Lea and Febiger, 1927.

The purpose of this book is to present the broad field in Obstetrics and Gynecology in compact form to the general practitioner of medicine. While the tendency of the times is for medical practitioners to devote themselves to certain specialties there are many who are engaged in general practice and have not the time to devote themselves to extensive reading of the many theories and speculations of the specialist. To these practitioners it is of

great advantage that someone in high authority present the essential and established facts in such form as to make them useful in everyday work.

#### THE ANTITOXIN IN THE SERUM

We speak of antitoxic serums, or antiserums, as the equivalent of antitoxin; but the serum simply contains the antitoxin, and along with it certain other ingredients that it has been the object of biologic research for the past thirty years to get rid of. These are, so far as known, albumins and euglobulins. The former have been separated, to a large extent, from the antiserums, but the antitoxic principle is very closely linked with a globulin or a pseudoglobulin so that separations of these has been found extremely difficult.

The albumins and euglobulins are believed to be responsible for the serum sickness and serum sensitivity that sometimes follow the use of antiserums.

An absolutely pure antitoxin has yet to be developed, but the analytic work of the pioneers in biologic therapy has at last succeeded in simplifying the problem to a certain extent. The diphtheria antitoxin now being offered by Parke, Davis & Co. is the most concentrated and the freest from all objectionable features of any heretofore supplied by this house. It is almost water-white in its purity, and contains a minimum, perhaps the irreducible minimum, of albumins and euglobulins.

## Announcing

# "The History of Medicine in Iowa"

By DAVID S. FAIRCHILD, SR., M.D.

EDITION LIMITED

PRICE \$5.00

Orders filled in order received

Address:

**The Journal of the Iowa State Medical Society**  
902 Bankers Trust Bldg., Des Moines, Iowa

## The HINSDALE SANITARIUM

HINSDALE, ILLINOIS

(On C. B. & O. Ry., only forty minutes ride from the Union Station in Chicago)

Located in the heart of an eighteen acre tract of virgin forest in one of Chicago's restricted, residential suburbs. Electro and Hydro-therapeutic treatment—150 outside rooms. Modern facilities. Operated strictly within ethical lines. Rates moderate. Write for free booklet and rate schedule.

## The Wilgus Sanitarium ROCKFORD, ILL.

Mild mental and nervous conditions including those due to drugs and alcohol. Long Distance, Rockford, Main 3767, and reverse the charges.

**DR. SIDNEY D. WILGUS**, formerly superintendent Elgin and Kankakee State Hospitals; **DR. EGBERT W. FELL**, late Physician Boston Psychopathic Hospital, recent Laboratory Chief Elgin State Hospital.

# The Journal of the Iowa State Medical Society

VOL. XVII

DES MOINES, IOWA, DECEMBER, 1927

No. 12

## SALT IN MEDICINE\*

THOMAS G. ORR, M.D., Kansas City, Mo.

Sodium chloride is the only inorganic substance deliberately added to our food. It is used by all for the taste and few realize the important role that this homely sodium compound plays in the bodily economy of the human race. There is no particular sign or symptom that indicates its need but we all know that a little pinch of salt is frequently very appetizing and for the more particular may spoil a meal if not available. By adding salt to suit the taste much more is consumed daily by the average individual than is really necessary to maintain the sodium chloride balance of the body. Our ordinary daily food supplies sufficient quantity and the excess is excreted, maintaining a nice equilibrium.

If we hark back to the beginning of life we are aware that many of the primitive organisms had their origin in salt water. In the earliest geological strata showing fossils there are found only shells of sea animals and a few bones of fishes. Whether this has any evolutionary bearing upon the present necessity for salt is not clear but such a thought furnishes an interesting consideration when we think of relish with which it is consumed by familiar animals.

In ancient times salt was rare in inland countries and looked upon as a great delicacy. It even had its place in some of the religious rites of certain people and played a role in sacrificial offerings and solemn ceremonials. In Lev. 11:13 Moses admonishes the children of Israel that "with all thine offerings thou shalt offer salt". Homer calls salt "divine" and Plato names it "a substance dear to the Gods". The term *salarium* in Roman times meant an allowance of money to soldiers for salt. Our own word *salary* there has its source. Salt cakes have been used as money in Abyssinia and other parts of Africa and Tibet. Its commercial importance was at

one time so great that it is probable many of the ancient trade routes and highways were established very largely to transport salt. As evidence of this, one of the oldest roads in Italy is called the *Via Salaria*.

The world is plentifully supplied with salt. It has been computed that the entire ocean if dried up could yield no less than four and one-half million cubic miles of rock salt, or about fourteen and one-half times the bulk of the entire continent of Europe above high water mark.

The manufacture and garnering of salt was once the work of Kings. Kingdoms went to war over the possession of salt deposits. There were some salt springs on the banks of the river Saale in Frankia over which two countries fought for fifty years believing that such places are closer to heaven and prayers of mortals from thence more easily heard. In Armenia, Russia and Greece the new born babies are sometimes rubbed with salt because of its supposed valuable properties in giving strength, vigor and endurance and in preventing corruption. In parts of Germany salt placed behind the ears of a newborn or in a little package between the folds of the diaper brings sense and protects against evil spirits. In Portugal, after the birth of a baby, the mother and child are protected against evil influences by scattering ground salt on the roof of the dwelling so that the witches may keep busy gathering up the salt and do them no harm. In Flanders women throw a package of salt behind them so that their confinement may have no evil consequences. In Ireland salt is hidden in the baby's clothes to protect it against thieving fairies and in America superstitious women throw a few grains of salt over the left shoulder when any chances to be spilt, to avoid bad luck of any kind that may result therefrom.

The history of salt reveals the tremendous role that this commonest of all chemical compounds has played in commerce, war, religion and superstition. Our chief interest in the subject is from the standpoint of its influence upon

\*Read at the Annual Banquet of the Medical Society of the Missouri Valley, Des Moines, September 15, 1927.



life in disease and its importance as a therapeutic agent.

For many years isotonic sodium chloride solution has been used to administer water by vein, beneath the skin and by bowel. This physiologic solution has the same osmotic tension as the blood plasma and does not cause a destruction of the blood corpuscles. The salt has been largely added to make the solution isotonic and not for any known inherent value possessed by the salt in the treatment of disease.

In recent years the attitude of many clinicians toward the importance of salt in certain abnormal conditions has caused a new chapter to be written in inorganic therapy. It is rapidly being realized that sodium chloride may be an important factor in disease and unless this salt is supplied in sufficient quantity serious consequences may be the result.

The use of saline solution in shock is well known in spite of the fact that recent studies have questioned its value. In severe hemorrhage, toxemias, depletion, pre- and post-operative dehydration and exhaustive diseases of infancy its importance is recognized by all. In such conditions it has heretofore been considered that the salt plays a secondary role in that it serves as an aid to the introduction of water and has not been given with the thought that it may have some inherent quality of worth in such therapy. Some good reports of its use in dementia precox have been received. Studies have been made that seem to prove that physiologic salt solution is toxic to the meningococcus and may be of some therapeutic value in this disease. Killian<sup>1</sup> studied the blood changes in mercuric chloride poisoning and found a marked reduction of the chlorides. In spite of the effect that this poison is supposed to have upon the kidneys he treated two patients with physiologic sodium chloride solution with beneficial results that appeared to have some relationship to the salt. Hughson<sup>2</sup> reports favorably upon the treatment of certain types of headache due to increase in intracranial tension. He used salol coated tablets of 1 gram each.

From the experimental standpoint the work of Loeb on the production of artificial parthenogenesis has been rather startling. He found that by immersing sea urchin eggs in sea water made hypertonic by adding sodium chloride the eggs were fertilized and developed normal larvae when replaced in normal sea water. What a great boost this would have been for salt if it had not been found that sucrose would do the same thing! The phenomenon was apparently

brought about by a change in osmotic pressure and well serves to illustrate the effect that a change in physical chemistry may produce upon a living organism.

There has recently been renewed interest in the metabolism of salt in the human body. Is its function to maintain proper osmotic pressures in the body, is it responsible in a large measure for maintaining water balance, is it the source of the hydrochloric acid of the gastric juice, has it some protective action against certain types of toxemias or does it play some role in body growth? These questions quite naturally arise when a review of the studies of this compound is made. It is doubtful if its action can be fully explained on the basis of physical chemistry. Cushny<sup>3</sup> says that the sodium ion (na) and the chloride ion (cl) are both practically inert, except in so far as they change the osmotic pressure. He further states that they are necessary constituents of the body but their action is limited to the alteration in physical properties of the fluids. Herrick<sup>4</sup> noted a reciprocal relationship between sodium chloride and glucose in the blood. If one of these crystalloids is added to the blood in excess the other promptly decreases, indicating that both function in maintaining osmotic balance. That the chlorine ion of the gastric hydrochloric acid has its origin from sodium chloride is quite generally believed.

It is claimed that the administration of salt will cause an increase in the free hydrochloric acid of the gastric juice in some cases of subacidity. Dogs on a strictly salt free diet will after a time secrete pepsin but no free hydrochloric acid into the stomach. By giving salt the free hydrochloric acid is restored. Certain experimental results to be mentioned below suggest that sodium chloride plays some role in the prevention of certain toxemias. Most surgeons have noticed the beneficial effect of generous doses of physiologic saline in cases of toxic or post-operative vomiting. Is this explained only by the administration of water which facilitates chemical activities of the body and aids elimination or is there some specific action attributable to the sodium chloride? No positive proof that sodium chloride possesses any detoxicating properties has been presented but such a thought is well worth careful consideration in the light of recent therapeutic suggestions. Mitchell and Carman<sup>5</sup> in experiments upon rats and chicks found that by adding sodium chloride to a corn ration the growth promoting value of the latter was enhanced. Hughson and Scarff<sup>6</sup>, at the Johns Hopkins Hospital have reported interest-

ing observations of the effect of hypertonic salt solution upon peristalsis and the rate of absorption of water from a distended loop of bowel similar to adynamic ileus was markedly diminished by a 30 per cent sodium chloride solution given intravenously. At the same time the salt stimulated active peristalsis in the paralyzed bowel. They applied their findings therapeutically with excellent results in cases of post-operative distension or ileus where there was no organic obstruction. This treatment for adynamic ileus has been substantiated by Ross<sup>7</sup> of Toronto who found that hypertonic salt solution caused active peristalsis when pituitrin and eserine failed completely. Striking beneficial results have been obtained with sodium chloride therapy by Cameron and McMillan<sup>8</sup> in the treatment of the intoxication following the use of deep x-ray applications to the abdomen. Their chemical studies of the blood and urine showed what they termed a retention of chlorides. Sodium chloride administered in sufficient quantity before exposure prevented this retention and its associated toxic symptoms. Major<sup>9</sup> found a fall in the blood chlorides following anaphylactic shock. Haden and Guffey<sup>10</sup> reported a case of serious toxemia of pregnancy from the University of Kansas Clinic with very low blood chlorides and high non-protein nitrogen. Treatment with sodium chloride solution produced remarkable clinical results with a return to normal of the blood chemistry. Low chlorides in the blood and urine of patients with lobar pneumonia is comparatively an old observation. No adequate explanation for the so-called retention of chlorides in this disease has been given. Coincident with the lowered chloride there is a rise in the non-protein nitrogenous elements of the blood indicating excessive protein destruction. Haden<sup>11</sup> has found that by supplying chlorides in the treatment of pneumonia definite beneficial results seemed to be obtained.

In the last few years considerable study has been made of the chlorides in their relation to certain diseases of the intestinal tract. An obstruction of the pylorus, duodenum or jejunum will immediately initiate changes in the chemistry of the blood and urine, one of the most marked of which is the lowering of the sodium chloride content. This occurs in pronounced cases of congenital pyloric stenosis. These tiny babies will sometimes have blood chlorides a little more than half the normal. Walters<sup>12</sup> and others have shown that changes in blood chemistry in duodenal fistula are similar to those found in obstructions of the upper bowel. These changes

also occur following experimental jejunostomy<sup>13</sup> showing that drainage only of the upper small intestine produces toxemia.

The finding of lowered chlorides in intestinal obstruction<sup>14</sup> has resulted in an adjunct treatment of this condition, the importance of which cannot be over-emphasized. Any patient ill with obstruction of the small intestine suffers from a combination of dehydration and toxemia accompanied by constant changes in chemistry indicating destruction of protein tissue. Not the least important of these chemical changes is the marked drop in the blood chlorides with their almost complete disappearance from the urine. Sodium chloride solution, if administered in sufficient quantity, not only relieves the dehydration but appears to have a direct action upon the reduction of toxemia. In other words, when sufficient salt is given, the products of protein destruction are diminished and the blood chemistry returns to or approaches the normal. Davidson<sup>15</sup> has found almost identical changes in severe superficial burns and has instituted salt therapy as part of his treatment.

There is no more logical therapeutic measure in the realm of medicine than the simple substitution in the body of a substance to replace that which has been lost or destroyed by disease. If the simple administration of sodium chloride in intestinal obstruction, burns, pneumonia and bichloride poisoning diminishes symptoms, reduces toxemia and gives the patient a weapon with which he may make a greater fight for life it behooves every physician treating these conditions to familiarize himself with its importance.

The above brief review of observations made upon its therapeutic application point to the very practical importance of this salt in its relation to health and disease of the human body. If such diseased conditions as intestinal obstruction, pyloric obstruction, lobar pneumonia, burns, mercuric chloride poisoning and x-ray intoxication produce similar changes in the blood and urine chemistry, one of the most striking of which is decrease in the chlorides, is it not logical to believe that the toxemias are very similar and that function might, in a measure, be restored by similar treatment? In all of these diseases the administration of sodium chloride tends to prevent or reduce the changes in the blood chemistry.

We know that without salt there can be no life. The body maintains the sodium chloride content of the blood at a very even balance and any change in this balance may indicate a marked disturbance of function. A knowledge of the



disturbed metabolism of sodium chloride serves to stimulate our interest in the inorganic compounds of the body in general and forces a realization that such constituents may be of inestimable importance in the study and treatment of disease.

#### LITERATURE

1. Killian, J. A.—*Jour. Lab. & Clin. Med.*, 1921, 7, 129.
2. Hughson, W.—*Jour. A. M. A.*, 1921, 77, 1859.
3. Cushny, A. R.—*Pharmacology and Therapeutics*, Lea & Febiger, 1911.
4. Herrick, W. W.—*Jour. Lab. & Clin. Med.*, 1924, 9, 458.
5. Mitchell and Carman—*Jour. Biol. Chem.*, 1926, 68, 165.
6. Hughson, W., and Scarff, J. E.—*Johns Hopkins Hosp. Bul.*, 1924, 35, 197.
7. Ross, J. W.—*The Canadian Med. Asso. Jour.*, 1926, 16, 241.
8. Cameron, A. T. and McMillan, J. C.—*The Lancet*, 1924, 2, 365.
9. Major, R. H.—*The Johns Hopkins Hosp. Bul.*, 1923, 34, 104.
10. Haden, R. L., and Guffey, D. C.—*Am. Jour. Obstet. & Gynec.*, 1924, 8, 3.
11. Haden, R. L.—*Jour. Lab. and Clin. Med.*, 1925, 10, 3.
12. Walters, W., Kilgore, A. M. and Bollman, J. L.—*Jour. A. M. A.*, 1926, 86, 186.
13. Haden, R. L. and Orr, T. G.—*Jour. A. M. A.*, 1926, 87, 632.
14. Haden, R. L. and Orr, T. G.—*Jour. Exp. Med.*, 1923, 38, 55.
15. Davidson, E. C.—*Arch. of Surg.*, 1926, 13, 263.

### HEAD INJURIES\*

NELSON M. WHITEHILL, M.D., Boone

The ever increasing number of automobile accidents has made the study of head injuries imperative.

Several recent series of cases of skull fracture show that the automobile is responsible for practically 50 per cent of the most severe of such injuries.

Most head injuries occur during the first ten years of life and the number gradually decreases with each succeeding decade. The mortality rate is lowest in the first and gradually increases with each decade. Sex or race show little variation. During and since the late war, there have been many valuable contributions to our knowledge of head injuries and brain surgery, but there is still much to be learned in regard to the physiology and pathology of the brain. When we have a more definite knowledge of the normal function of the brain, clinical symptoms may be recognized and interpreted more correctly, and more rational treatment instituted.

Hippocrates, Galen and even those before them, wrote of the symptoms resulting from head injuries. During the eighteenth century Verduc, Boerhave, Von Haller and others wrote

of the cause of certain symptoms of cerebral compression.

As Beaumont, studying his patient Alex St. Martin, furnished valuable information along the lines of digestion, so Boerhave through his patient, the side of whose skull was torn out leaving the dura exposed, contributed much to the study of cerebral localization, and the result of different degrees of pressure made against the dura.

It was not until the later experiments of Leyden, Hill, Kocher, Cushing and Quincke on cerebral compression that the pathology and the correlation of the pathology and symptomatology began to be understood.

More recently followed the work of Weed, McKibben, Putnam, Foley and others on hypertonic salt solutions. By far the more exhaustive studies on the pathology of traumatic lesions of the brain has come from the work of Le Count and Apfelbach, Jackson of Chicago and Sharpe of New York.

The work of these investigators confirms the work of Quincke, who in 1891 published his theory of measuring the spinal fluid pressure and using this pressure reading both as a diagnostic and therapeutic measure.

Through a window in a trephine opening, Cushing observed the effects of pressure on the blood-vessels of the brain, as to size, color, etc., and proved that pressure symptoms are produced by a disturbance to the circulation rather than by compression of brain tissue. The result of compression is to empty the veins and capillaries so that venous blood is retained within the brain, and as the veins are the natural exit of the spinal fluid, this in turn becomes stagnated and adds to the cerebral edema, bringing about an anemic condition as soon as the compression exceeds the blood-pressure.

Le Count and Apfelbach in their report on the postmortem findings in 504 cases of head injuries in the Cook County Hospital find "the most frequent change in brains of patients dying from fracture of the skull was traumatic edema of the brain. As in other forms of edema of the brain, the convolutions are flattened, the cerebral veins relatively empty and flattened, the peripheral ends of the sulci closed up more or less tightly, the fluid in the leptomeninges greatly lessened, and when the edema is marked, the visceral layer of the arachnoid is almost dry."

The cerebrospinal fluid is secreted in the choroid plexus, passes through the third and fourth ventricles through the subarachnoid spaces and is finally absorbed by the veins and

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

sinuses of the dura. The brain contains normally about 60 cubic centimeters of fluid which communicates with a slightly smaller amount in the spinal canal.

So, of the classifications into which brain injuries were formerly divided, viz., concussion, contusion and compression, it is the latter on account of its intracranial pressure that requires palliative treatment in the majority of cases, while a depressed fracture, or a blood clot due to a torn meningeal artery or foreign body with its localized symptoms of pressure makes operative interference most often indicated.

Injuries of the brain are usually found on the outer portion owing to the fragments of bone impinging on the dura and brain, and to the brain being driven against the inner side of the skull.

In contre-coup bruises the frontal and temporal lobes of the cerebrum are subject to more frequent and extensive injury on account of the posterior brain being larger and heavier than the anterior.

Back-of-the-head injuries, which are the most common, have the greatest number of contre-coup bruises while injuries to the sides of the head have the next greatest number of contre-coup bruises.

In Le Count's series of cases, he reports 178 cases of fracture of the posterior fossæ, in 83 per cent of which the largest bruise of the brain was contre-coup. In 166 fractures of the middle fossæ, there were 62 per cent in which the largest bruise of the brain was contre-coup. In sixty-one fractures of the frontal fossæ, there were only 21 per cent contre-coup bruises.

The general theory of contre-coup injuries is that with the head in motion, the brain enveloped in cerebrospinal fluid, naturally lags behind resting against the portion of the cranium opposite that which received the blow and as a consequence often sustains the more severe injury.

Penetrating wounds of the dura carry a high mortality and usually result in death from meningitis or brain abscess. The hospital mortality of penetrating wounds of the head in the British Army during the late war was about 40 per cent. Nearly always due to infection, and this infection often very slow in developing, hence caution against dismissing such a case without proper observation.

As a rule, in injuries resulting in laceration of the brain, it is the injury to the blood-vessels and the resulting hemorrhage rather than injury to the brain substance itself that causes the greatest damage.

No branch of surgery demands a higher grade of diagnostic ability and sound surgical judgment as to when operative interference is indicated. It offers a wonderful opportunity for teamwork between the surgeon, neurologist and the general practitioner.

A surgical operation following a severe injury to the head is always to be regarded as a formidable one and should be undertaken only after a most thorough study and examination of the case. The need for an immediate emergency operation is rare. A case necessitating an operation is almost always accompanied by shock and surgical interference before the relief of shock would only increase the risk. The initial shock rarely lasts longer than twelve hours.

On the other hand, it is equally distressing to find at autopsy a large clot or depressed bone fragment, clearly the cause of death, the timely removal of which might have saved a life had there been a correct interpretation of the symptoms and the courage on the part of the surgeon to interfere.

The importance of surgical cleanliness in the primary dressing of head injuries is obvious when we remember the anatomy of the skull and scalp. The scalp is loosely attached to the skull by areolar tissue that offers little resistance to infection. The superficial veins lying in the subcutaneous tissue of the scalp communicate with the diploic veins of the skull and these in turn with the intracranial sinuses and afford an easy entrance of infection to the meninges and brain. Fracture of the posterior nasal bones presents a well known route of infection. Thorough cleansing and shaving with debridement of the injured portion of the scalp should be done at once. Eyes washed with a weak solution of argyrol and ears and nostrils touched with iodine or mercurochrome solution. Anything less than a thoroughly cleansed wound represents gross surgical neglect and the superficial infection may be made a deep and inaccessible one by careless exploration of the wound. The aphorism of Dr. Nicholas Senn uttered years ago is especially apropos in the dressing of head injuries: "The surgeon should realize to the fullest extent the additional responsibility thrown upon him by modern aseptic surgery."

As in making any diagnosis, the history is important, especially that pertaining to the sequence of symptoms. In the milder forms of head injuries or the so-called concussion of the brain, unconsciousness is the immediate outstanding but temporary symptom. A recurrence of symptoms after a free or lucid interval or a



steady development of symptoms makes of it a severe injury with the resulting tension from traumatic edema which may be from a depressed fracture, a blood clot or a generally lacerated brain.

In diagnosis, the x-ray is, of course, of value in determining the presence and the extent of the fracture, but in treatment, with the exception of a depressed fracture, the bone injury is of little importance as compared to the presence and the amount of increased intracranial pressure, which may be very accurately determined by lumbar puncture and the spinal manometer.

In the differential diagnosis of brain lesions, ophthalmoscopic examinations of the fundi are of value. "Choked disks" rarely follow brain injuries, being rather the result of a more prolonged pressure as from a cerebral tumor, while an edematous condition of the disks is more common following injuries. The circulation of the cerebrospinal fluid in the brain and cord being established, it follows that any interference with this circulation from trauma will produce an intracranial pressure which if allowed to increase will involve the centers of the medulla and produce the slow pulse, stertorous breathing, low blood-pressure, vomiting and deepening coma, symptoms which invariably portend a fatal outcome and which, when once established, contraindicate operative interference. From experimental work it has been very definitely determined the amount of pressure necessary to produce these symptoms, and it is to anticipate and prevent this fatal medullary involvement that the withdrawal of spinal fluid at intervals of from six to twenty-four hours is indicated.

As a further aid in reducing the amount of cerebral edema, the use of hypertonic salt solution intravenously has come into use. By raising the hypertonicity of the blood by the use of salt solution together with the dehydrating effect of magnesium sulphate in the bowel, the damned up fluid in the tissues and basal cisterns of the brain will be drawn into the circulation, thereby reducing the cerebral pressure. This theory has been quite definitely established both by experimental work and clinical observation. Some authorities, notably Sharpe, in his very exhaustive work on "Diagnosis and Treatment of Head Injuries", advocate a decompression operation in all cases where the spinal pressure registers 16° or above. This is an extreme view, however, and is not concurred in by most observers.

The indications and technique for operative interference will not be taken up in this paper.

Certain it is that in the majority of cases, intracranial pressure is the immediate pathological problem to be dealt with and the more palliative measures, as outlined, are giving as good or better results than the more radical.

### CONCLUSIONS

1. It is imperative for every general practitioner as well as surgeon to be informed on head injuries.
2. The majority of cases may be successfully treated by the more conservative measures.
3. Indications for operative interference are usually three, viz., depressed fracture, meningeal hemorrhage and foreign body. Operation should be performed as soon as shock and the definite localization of the trauma will warrant.

### BIBLIOGRAPHY

- Senn—Practice of Surgery.  
 De Quervain—Clinical Surgery Diagnosis.  
 Bryant and Buck—American Practice of Surgery.  
 Sharpe—Diagnosis and Treatment of Head Injuries.  
 Grant—Surgical Clinics of North America, February, 1924.  
 Temple Fay—Surgical Clinics of North America, February, 1924.  
 Le Count and Apfelbauch—American Medical Association Journal, vol. lxxiv, No. 8.  
 Carter—Annals of Surgery, vol. lxxxiii.  
 Jackson—Surgery, Gynecology and Obstetrics, vol. xxxiv, No. iv.  
 Conners—Annals of Surgery, vol. lxxxi, No. v.  
 Besley—American Medical Association Journal, vol. lxxi.

### Discussion

**Dr. Francis R. Holbrook, Des Moines**—The most important factor in the treatment of head injuries is for us to get the true conception of these cases and to think of them in proper terms. Until quite recently we have thought of cases of head injuries in terms of fractures of the skull. As long as this opinion obtained no progress could be made. Fracture of the skull by itself is a very minor affair. No patient probably ever died of fracture of the skull alone. It is no more serious than fracture of any other bone in the body, the skull is absolutely secondary in the consideration of a head injury. The thing to think of is, what has happened to the intracranial contents? Every case of intracranial injury is accompanied by a corresponding and proportionate increase in the intracranial pressure, and this is the important point. Every case of brain injury involves intracranial pressure to a greater or less degree. In the minor cases it is of slight degree and does not amount to much and will take care of itself, but in the severe cases it is the intracranial pressure that causes death. Therefore in every case with which we come in contact it is necessary for us to determine whether there is an increase in the intracranial pressure, and if so to determine how great it is and what can be done for it. If we wait until the clinical signs of intracranial pressure manifest themselves, such as stertorous respiration, coma, etc., the time has passed for helping the patient. It

is necessary to know early whether intracranial pressure exists, and we have a reliable means of ascertaining it, and that is by measuring the intracranial pressure through lumbar puncture and the use of the sphygmomanometer. Extensive experiments have shown that normal intracranial pressure has an approximate level. Anything above that level is pathological or increased, and when the pressure reaches a certain point a condition is created that demands some kind of treatment. That level has been rather arbitrarily established at about 15 mm. of mercury, but one must know whether pressure exists. If there is pressure, what will you do for it? There are three things to do for it: Dehydration, drainage, decompression. Recently much has been accomplished in handling these cases with dehydration. Anything that tends to interfere with circulation of the cerebrospinal fluid, which has a definite circulation, chokes off the flow of the fluid which is then dammed up in the basal cisterns and finally makes pressure on the medulla, when death ensues. Anything that will tend to shrink the brain, forcing fluid out of it, will tend to lessen the bulk inside the cranial cavity and thus allow drainage to take place. There are three methods by which this may be accomplished: Hypertonic salt solution given intravenously, by mouth, or by rectum. In approximately two-thirds of all cases dehydration will accomplish satisfactory results. Along with dehydration drainage of the spinal fluid may be accomplished through lumbar puncture. When the manometer indicates that there is a pressure of 25 mm. of mercury, you can drain off a certain amount of fluid, then test again, keeping an accurate gage on intracranial pressure with the manometer. Of those cases demanding operative intervention, roughly one-third arise mainly from two causes: Depressed fracture and hemorrhage. Hemorrhage usually gives localizing symptoms, when by operating you can find the bleeding point and in that way relieve the pressure. But the main thing is dehydration and drainage. Decompression operations are now done rather seldom. But the most important point of all is to get away from the idea of considering head cases as fractures of the skull. Many cases of head injury resulting in death have no fracture at all. Serious injuries may be inflicted without any skull fracture at all. In the past we rushed such a patient to the hospital, and when an x-ray picture of the skull showed no fracture we put him to bed, doing nothing at all to relieve intracranial pressure, and lost our patient. By keeping a check on intracranial pressure you know what is going on inside the skull, and, knowing this, you are in position to treat the case intelligently.

**Dr. Thomas F. Thornton, Waterloo**—A point I wish to emphasize is the so-called minor head injury. We have a great many head injuries in our part of the country that are apparently minor. I have in mind three cases, one of which was a young girl who was on the running board of an automobile

when the car suddenly started and she was thrown to the pavement. She was rendered unconscious for a short time and then taken to the hospital. Because the patient reacted very promptly and wanted to go home, the physician who attended her decided that the injury was of minor character and nothing was done. Four days later there was a chill, meningitis developed and the patient died. I saw another case about two years ago, that of a man who was knocked off a ladder and dropped about twelve feet, alighting on his head. He was not rendered unconscious and walked to a physician's office. He had nose bleed, dizziness and a sense of fullness in the ears, but no blood or spinal fluid came from the ears. The patient was given some temporary treatment practically without any examination being made. Four days later I saw him with a chill, there was pus in the spinal fluid and pneumococci were found. We do not mean that we can cure cases of meningitis, but here are apparently slight head injuries which went on to a fatal termination, without proper examination and management. Again, unfortunately, we had a physician who sustained a head injury, and they thought because he had merely fallen on the sidewalk in front of his home that the injury was of a minor character. This patient was kept in the home about fourteen hours before it was recognized that a serious injury had been sustained, when it was too late to render service that would have been beneficial to him. Therefore I wish to emphasize the fact that even slight head injuries, demand our most careful attention.

**Dr. Frank A. Ely, Des Moines**—I appreciate very much the conservative way in which this subject has been handled. A point or two, I wish to emphasize. One is the fallacy of feeling that you have an accurate index of the cerebrospinal pressure by means of the ophthalmoscope. There is a great variation in individuals in that respect. You may have quite a high cerebrospinal fluid pressure and almost no manifestations about the disk. Therefore I do not believe that fundus examinations are a very reliable index as to what is going on in the intracranial cavity. I think that the spinal manometer and the lumbar puncture give the most valuable information. Just why it is that there are so many skilled practitioners who hesitate to do lumbar punctures, I do not know. I have noted a very marked hastening of recovery in patients with head injuries, since spinal drainage and dehydration have been in vogue. Another point that perhaps might be of value. The petrous portion of the temporal bone is very frequently fractured. In cases of basilar fracture, if you happen to have hemorrhage from the ear do not try to stop it, because many times the hemorrhage from the ear is a life saver. The doctor who follows some of the surgical text-books is going to get in bad some day, because for some reason many of these pseudo head surgeons who have written books on the subject are entirely too radical, and it is not a very nice thing for a man to go



through life with a bilateral sub-temporal decompression. As the two gentlemen who preceded me stated, the majority of these cases are being handled very nicely by means of dehydration and spinal drainage. In looking up the question of the best substances to use in the process of dehydration, I found considerable evidence to indicate that glucose is by far the safest substance for intravenous administration.

**Dr. Charles H. Magee, Burlington**—I have been somewhat entertained by the paper and the discussions and the freedom with which the last speaker would simply wipe the text-books out. A wonderful thing. Our young friend here spoke quite splendidly and very freely in regard to indications for operation after a fracture of the skull. He told us that when there was stertor and coma it was too late to operate—very beautifully said, but there was one slight drawback to it; it isn't so. A boy was climbing a tree when another boy came along taking a dinner to his father, a worker at the round house. Desiring to find out why the boy was climbing the tree, the boy set the basket, with a heavy stone teacup in it, under the tree and the boy fell and struck his head against the teacup. He got up and strolled along for a while, but began to feel a little dizzy and so went home, and the parents eventually took him to the hospital. He kept getting more and more sluggish and finally fell into stertor and also into coma. I saw him the next day, and, very foolishly according to the statements of the young man here, I operated and found a clot. I did not use an anesthetic, and when I found and removed the clot he speedily regained consciousness. So we have one young man here wiping out the text-books and another one advising us when to operate. Let me tell you this: Head injuries have been problems for the old philosophers long, long before we were born, and those problems will be topics for discussion long after we are dust and ashes. Probably each fellow thought he had the world by the tail on treating head injuries. We may not know it all today, and men may not know it a thousand years from now.

**Dr. Max E. Witte, Clarinda**—I desire to say a few words more particularly from a different angle which has come to me in the course of my special professional work, and that is the possible end results of head injuries. My personal experience with these end results has culminated in the dictum that if there is any indication for operation, operate at once and do not delay. The victims who have come to me with brain injuries as the result of impacted fractures of the calvarium and skull injuries generally, have gone for years without any serious symptoms. They have had headaches and no operation was done, but later they became deranged mentally or developed insanity, Jacksonian epilepsy, or paralysis, and then these patients come and insist on operation. In the past I would operate such cases, and sometimes for the time being with ap-

parently brilliant results, but if I saw the patients a year later I found that they were worse than before the operation. So I am not operating now as much as I did. This is not only true of my own work, but I have also seen the operation done by such grand masters of our profession as Senn, Fenger, and Murphy, and they had absolutely the same ultimate results. Therefore if a patient comes to me and wishes to have something done I tell him of my experience, and he subsides and endures life as it is instead of becoming worse.

---

## PREPARATION OF PATIENTS FOR OPERATION\*

---

F. K. BURNETT, M.D., Clarinda

Many times do we watch the skilled surgeon operating a difficult case, and wonder at the apparent ease and certainty with which he separates tissues, ligates bleeders, removes the pathological structures and creates new anatomical relationships, all the while directing his assistants, keeping track of the general condition of the patient and perhaps explaining each detail of the operation to those watching the procedure. At the time little do we realize that in performing an operation lasting less than an hour, the surgeon has spent from twenty-five to forty years preparing himself for this work. He has drawn from the diverse experiences and teachings of other men of his profession and from these has formed a composite technic of his own and adapted it to the particular patient. His technic may be perfect, the asepsis complete as is possible, the assistants well trained, his instruments the best money can buy, but the measure of his success depends on the patient surviving the operation and being freed of the disease or the deformity for which the operation was performed; hence, since it is necessary for the adequate preparation of on the part of the surgeon and his staff, should we ignore that preparation of the patient which will put him in the best possible condition to withstand the ordeal and insure a prompt and complete recovery.

Little would we think of the chances of victory for an untrained and poorly coached football team. All other things being equal, the betting would fall off on the untrained and unconditioned prize fighter. What chance would the green and unseasoned army have against an equal number of troops seasoned by months on the field! In these illustrations the object of adequate preparation is honor, money and con-

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.

quest; but the patient on the operating table has his life at stake.

The preparation of the patient for operation must be governed by the circumstances under which the operation is to be performed, whether or not it be an emergency, the facilities at hand, if any chronic disease be present, and the general type of patient. We cannot compare the benefit or advisability of pre-operative treatment of a patient coming to the hospital for the removal of a chronic gall bladder to the hasty preparation of a patient the victim of a crushing injury in which a hurried amputation must be done to save his life, consequently we limit this discussion to patients who come under the surgeon's regimen at least twenty-four hours before the operation is to be performed, and even then we have other problems to cope with which will require entirely different lines of pre-operative treatment. The toxic thyroid, the diabetic, the prostatic obstructive case, the exsanguinated patient, the jaundiced case, and many others, all of which require a different method of management by which they may be brought as near the normal condition as possible under the existing circumstances. There are still further considerations of superstition, fear, and perhaps the well meant but poorly directed advice often given a patient by some relative or friend who had a similar operation several years previously.

Crile says that the most common predisposing features of surgical deaths are severe infections, hemorrhages, exhaustion from physical exertion, exophthalmic goitre, surgical shock, and overwhelming emotions, all of which may be more or less corrected by proper pre-operative care if time and conditions will permit.

In addition to the general pre-operative care, certain conditions demand special pre-operative treatment which will make such patients reasonable operative risks. Not more than five years ago a diabetic patient was denied operation; or if operation was accepted, the chance of recovery was considered very grave, but now such a patient is rendered sugar-free by giving a restricted diet, and by the assimilation of larger amounts of carbohydrates, which act as a reserve energy, is made possible by the use of insulin. The diabetic coma is further guarded against by the administration of 50 to 60 grains of sodium bicarbonate daily, over a period of four days before the operation. The patient with gastric retention due to obstruction, is retained under observation on a special diet, until the washings from the stomach show no food particles, when a gastro-enterostomy is advo-

cated. The patient can now assimilate food and his condition is improved to such an extent that he can endure the resection of the tumor which may have been causing the obstruction. Much has been accomplished in the toxic goitre case which formerly was considered a very poor operative risk. By the use of Lugol's solution in the exophthalmic goitre condition, and a regimen of rest in the toxic adenoma cases, the Mayo clinic has reduced their mortality about 4 per cent. Records from the same clinic show that in operating 100 jaundiced patients, a successful pre-operative condition was obtained by daily inter-venous injections, for a period of three days, of 5 c.c.'s of a 10 per cent solution of calcium chloride, and at the same time the body fluids and carbohydrates were increased daily by giving as much as could be tolerated by mouth and the remainder by proctolysis. The prostatic obstruction cases were formerly considered poor operative risks, but now are operated with relative safety by establishing pre-operative drainage, pushing fluids, and thus reducing the non-protein nitrogen to near normal levels. In many of the acute infections palliative treatment during the acute stage and later operative intervention will prevent many cases of post-operative peritonitis, cellulitis, or a generalized septicemia.

By these observations, and many other similar ones, the Mayo clinic has established a mortality rate of 2 percent in diabetic patients as compared to the expected mortality of 30 per cent which was common a few years ago. Berkman reports a mortality reduction of 50 per cent in gastric retention cases by the proper pre-operative treatment.

Until in recent years the general surgical patient was not considered ready for an operation unless he was drastically purged the evening before the operation. This custom has been a relic brought to us from antiquity and perpetuated by superstition. Burton stated that "Purge scours the body of vomit, urine, sweat, and of all manner of superficialities and keeps it clean." Galen writes, "Every purgative by some specific property attacks, and as if it were, sucks to it the humor to which it has a natural attraction, in a manner like a magnet attracts iron." It is stated that Corneades purged himself thoroughly before entering into a debate with Zeno, stating that if hellebore, the drug used, would cure a mad man it would sharpen the wits of a sane man. We can thus easily see that the original use of a purge was not based on good physiology and its early use in operative cases was taken as an essential routine.



The purge as has been formerly used in pre-operative preparation given the night before operation prevented a good night's rest and the patient was brought to the operating table in an exhausted condition, nor does it empty the bowels of the liquid feces. Thus if the intestines are opened either intentionally or accidentally during the operation there is a greater danger of contaminating the operative field than if the contents would be solid. It was the former idea that a purge was required to empty the intestines of feces, but little did they consider the residue is in the colon from seven to nine hours after a meal is taken and then it could be reached by an enema. That there is no rational basis for a routine purge is evidenced by the fact that a catharsis of the same amount and kind was given for a gastro-enterostomy, tonsillectomy, amputation of the breast or a trephine of the skull. It has been shown that if the stomach is empty an anesthetic is better tolerated without a purge having been given. If toxic effects are feared from the absorption of the contents of the gastro intestinal tract, it is well known that there is greater absorption from feces that have been liquified by a catharsis than there would be from solid fecal matter. In a series of investigations Karl Meyers proved that in carriers of typhoid fever in many cases that the organisms could not be cultivated from a solid stool, but in the same patients after a purge had been given the bacteria swarmed in the liquid stool.

Normally the gut is impermeable to bacteria, but this protective mechanism can be broken down by excessive secretions, fatigue and starvation. Again Meyers proved this in a series of experiments on dogs in which after severe purging he injected bacteria into the colon and later recovered a positive blood culture, of the same bacteria injected per rectum, while on the control dogs negative cultures were secured by the same technic in the dogs which had not been purged. It was formerly supposed that administration of a catharsis was essential in the prevention of the formation of gas and relieved gas pains. Alvarez came to the conclusion after a series of experiments that the amount of distention or the intensity of gas pains was unaltered by the amount of fecal matter in the bowel, but when the circulation was interfered with, or a small loop of the intestine was incarcerated, or the intestine subjected to rough handling or drying, the distention became marked. An accumulation of feces above a stenosis does not cause the formation of gas, but a small loop of the intestines included in adhesions or a

pocket, at once results in a distention of the gut.

The object for the preparation of a patient for operation is to bring him to the operating table in as nearly a normal condition as is possible, his resistance built up and, consequently, his endurance strengthened. Little would the athletic coach think of giving the members of his track or football teams a drastic purge the night before an important conflict, and much less would the surgeon who is considerate of his patient keep him awake all night by a purge and bring him to the operating table in an exhausted and weakened condition.

In a series of 211, 146 of which were subjected to abdominal operations, the omission of the pre-operative purge reduced the incidence of post-operative pain from 75 per cent to 42 per cent, vomiting was reduced from 45 per cent to 30 per cent, and in the extra abdominal operations vomiting was reduced from 20 per cent to 4 per cent. Of this series twenty patients were allowed to go for six days after operation without a bowel movement, none of which showed any ill effects from this delay in evacuating the bowels. By this it is not meant that a static condition of the bowels is conducive to desirable operative results, but instead that the evacuation of the intestines should be as near normal as is possible to be produced. In cases where there is a tendency to constipation the use of fruit juices and coarse foods will generally overcome the average degree of constipation.

The patient who is best treated after the operation is the one who is least treated. A stormy convalescence is nothing more than the patient's effort to overcome the depression of shock, which with careful preparation is often prevented, and generally is reduced in severity and occurrence. If time will permit the patient should spend a few days in the hospital before operation, which will allow him to become accustomed to the new routine and surroundings, and get acquainted with the nurses, the doctor and interns. The man unaccustomed to a hospital and who, perhaps, has been working up to the time of the operation will have to get accustomed to the new routine and surroundings at a time when their effects are not favorable to his recovery. On the other hand a few days spent in the hospital before the operation should allow time for the surgeon and anesthetist to learn the physical and mental condition of the patient and to gain the confidence of the patient, which will greatly allay his fear. During the pre-operative period the patient's surroundings should be comfortable, cheerful, well ventilated and quiet. The

surgeon should gain the confidence of the patient, and while not minimizing the dangers of the operation should be as optimistic as possible.

A thorough physical examination is to be made embracing such features as a fluoroscopic and electrocardiographic examination of the heart, an x-ray of at least the local area, a search for foci of infection, an examination of the blood, considering the hemoglobin, the blood count, the differential, the non-protein nitrogen, the clotting time and the bleeding time, the amount and character of urine, a culture of the blood to detect the presence of bacteria, all of which are at times of very great importance. In special conditions there may be indications for a blood transfusion, for a forced administration of fluids, or for an alkalization of the patient. In pelvic conditions in women there may be a profitable postponement of the operation to clear up acute inflammatory conditions by antiseptic douches. A thorough examination of the lungs should be made.

The patient is to be brought through the operation in as nearly a normal condition as possible, which means that the nutrition must be but slightly interrupted. Some authorities advocate a pre-operative diet high in carbohydrates, even to the point of injections of glucose, and thus create an excess of glycogen in the liver which will also better enable the patient to combat toxins. One surgeon advocates giving the patient 10 ounces of malt sugar between the last meal and the time of operation. A diet low in proteins is said to have a prophylactic effect on shock. This is the basis on which DeCourcey maintains that injections of a foreign protein as typhoid vaccine or milk will combat the shock of an operation, since it desensitizes the body to the foreign proteins produced by the trauma and maceration of tissues during the operation, which he maintains is the cause of shock. Putrefactive bacterial flora may be combated by the use of *B. acidophilus* and *B. bifidus* given in a milk and starch enema. Fluids should be taken into the body at the rate of three to five pints a day before the operation.

In preparing for operations of bad risks a few factors are worthy of consideration. The special effort must be to correct the abnormality and approach as nearly as possible the normal physiological condition. For example, major operations on alcoholics must be approached with caution because of impairment to the brain, heart, liver, and kidneys. The tendency being towards a shortage of oxygen and a subsequent acidosis. These conditions being corrected by

the liberal use of carbohydrates, fruit juices, alkalis, and Fisher's solution. Epstein has shown that the most striking change of the blood during an ether anesthesia is one of absolute diminution. Transfer from arterial to venous channels and the passage of fluid from blood streams to tissues occurs. Thus we see the necessity of maintaining a normal fluid balance by the administration of an excess amount of liquid. Again, fluids perform a valuable function in cases of obstruction of the lower intestine. The body fluids become saturated with by-products so they no longer serve to wet the cells; but instead, hold in suspension, poisonous materials, thus the dilution of this toxic material by fluids will increase the metabolism and a normal function will be accelerated. For the preparation of heart patients "Moots" rule seems a valuable guide, "When the pulse pressure divided by the diastolic pressure is greater than 75 or less than 25 the case is inoperable." Decompensation is a contra-indication to a major operation under a general anesthetic while a murmur without decompensation indicates the need for caution. Many advocate a routine digitalization as a desirable pre-operative measure, giving a grain and half of digitalis per 15 pounds of body weight as a total amount. High blood pressure does not necessarily increase the danger of an operation but a low blood pressure does often excite post-operative complications.

Crile has recently demonstrated that as the temperature of the liver falls, its function decreases 10 per cent for each degree of temperature change. If the abdomen is opened the temperature of the room being lower than that of the body, causes a corresponding fall of temperature and decreases the liver function. He advocates to combat this decreased function of the liver by maintaining its normal temperature by the use of diathermy applied and kept running during the operation.

If the patient is ambulatory and his condition will permit a cold bath the evening before the operation, it is of great benefit, not because of the stimulating effect of the cold directly, but because of the reflex activity produced. The activity of the skin and blood vessels is increased, the heart action becomes more vigorous, respiration is increased, the residual air is driven out and the tidal air is greater, the stomach tonus is improved, and its secretion is promoted and in general the stomach becomes more active. By the reflex activity of the cold the blood cells are driven out of a congested liver, spleen and smaller vessels and released into the general cir-



culution, and in addition their oxygen carrying power becomes greater.

The skin over the local area and immediate vicinity should be cleaned, shaved and washed with alcohol or ether, the night before the operation and protected over night with a dry dressing. If the patient be of a nervous disposition this preparation should be made with as little ceremony as possible. The conversation of the nurse or person doing the preparation should not dwell on the horrors of some previous operation nor the possibility of a fatal outcome of the patient's operation, but should be such that the patient will not be given a text of worry which could be easily expanded into a night of fear and sleeplessness. A supper of easily digested foods rich in carbohydrates can be given at 6 p. m. and a soap suds enema given about 9 p. m. To insure a good night's rest some hypnotic should be used. The average patient is full of apprehension and fear, and even though they have been resting good at night previously it is not safe to depend on this calmness, but a forced sleep should be insisted upon.

The early morning is usually the time chosen for operations, for this saves hours of anxious waiting for the operation on the part of the patient, and at this time of the day the surgeon is likely to be more alert and steady than later in the day when fatigued. If the operation is to be performed at 7 a. m. the patient is given some coffee at 5 a. m. A plain enema is to be given at 6 a. m. which should be retained for about five minutes then expelled. About an hour before the operation  $\frac{1}{4}$  morphine and 1/100 scapolomine should be given which will prevent serious emotions and will provide for an easier effort to get the patient under the anesthetic. Just before the operation Wells advocates elevating the hips and giving an enema of two quarts of a 5 per cent solution of sodium bicarbonate and 5 c.c.'s of a 20 per cent glucose solution.

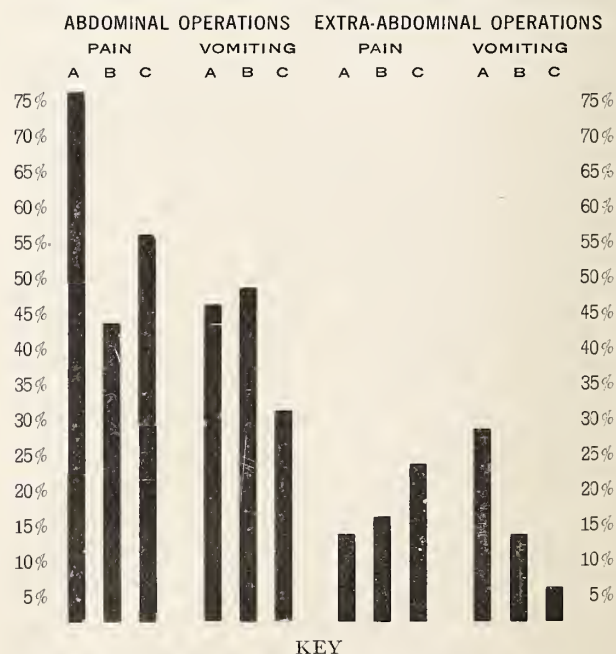
All precautions should be taken to keep the patient warm while on the way to the operating room and while on the table, which is done by putting hot water bottles on the cart and operating table. The position of the patient on the operating table is of post-operative importance. Many severe post-operative back aches can be prevented by the proper attention to the position of the patient on the operating table. A small sand bag or pillow under the small of the back will prevent the muscle strain that would otherwise result because of the relaxation of the muscles as caused by the anesthetic. During the operation frequent observations should be

made of the condition of the pulse and blood pressure.

The choice of anesthetics is determined by the length of the operation, the type of operation, and the surgeon's preference. When ether is not well tolerated by the patient nitrous oxide may be used at first and later switch to ether if the condition will permit of such. Collins contends that there should be nothing placed over the eyes when giving ether. A moist piece of gauze over the eyes will touch the cone and by capillary attraction will become partly saturated with ether, thus instead of protecting the eyes the saturated gauze becomes a source of irritation.

The general accepted final preparation of the operating field, done when the patient is well under the anesthetic is the liberal application of a 3 per cent tr. of iodine, 1 per cent mercuriochrome or picric acid and tr. iodine is used, it is partly washed off by the use of a 50 to 70 per cent alcoholic solution. The field must be dry for the use of tr. of iodine. Many surgeons advocate the use of ether, some the use of gasoline, and some the use of benzene for the final cleansing of the skin, and the removal of the fat particles in the pores.

If by careful pre-operative care, convalescence is shortened, shock is reduced, and mortality reduced, many borderline cases are shifted over



This series is on 211 operations, 146 of which were abdominal operations, and sixty-five extra abdominal operations.

Reference—"Improvement in Pre- and Post-Operative Care", Taylor, Terry & Alvarez, J. A. M. A., 79; 1587; Nov., 1922.

into the class of reasonably safe operative risks, the fact that many of the emergency cases make ideal recoveries, speaks for itself that the patient who comes to the operating table, not weakened by a purge, starved, or overtreated, but in as near a normal condition as is possible, has by far the better chance of a speedy recovery.

## BIBLIOGRAPHY

1. Abbott—"Surgery in Past Generations"; Minn. Med. Jour., 6: 569, August, 1923.
2. Allen, M. F.—Analysis of Gall-bladder Operations; Boston Med. and Surgical Journal, Vol. 196, January 27, 1927.
3. Alvarez, W. C.—Purgation Before Operation; Surg. Gyn. and Obst., 26: 651, June, 1918.
4. Alvarez, Terry & Taylor—Improvements in Pre- and Post-Operative Care; Jour. Am. Med. Assn., 79: 1578, November, 1922.
5. Bayford—Purgation Before and After Operation; Jour. Am. Med. Assn., 72: 474, February, 1919.
6. Bickman, W. S.—Operative Surgery, Vol. 1.
7. Bliss, Rodney W.—Preparation of Goitre Patient for Operation; Medical Management of Goitre; Nebr. St. Med. Jour., Vol. XI, No. 11, November, 1926.
8. Bloch, E.—Pre- and Post-Operative Care; Am. Jour. of Surg., 34:160, October, 1920.
9. Crile, G. S.—Diathermy and Surgery, F. A. C. S. Surgery, Gynecology, and Obstetrics, February, 1926.
10. Crile, G. S.—Address in Surgery. Read before the Thirtieth Annual Meeting of the New York and New England Assn. of Railroad Surgeons; Am. Jour. of Surg., Vol. 31, No. 3, 1922.
11. Collins—Patient's View Point of Operations, Illinois Med. Jour., 30: 105, August, 1916.
12. DeCourcey, Joseph L.—Diminution of Post-Operative Shock by Pre-operative Desensitization; Cincinnati, Ohio.
13. DeCourcey, J. B.—Lessening Post Operative Shock by Pre-Operative Treatment; Am. Jour. of Surg., 36: 293; December, 1922.
14. Dennis—History of Surgery; System of Surgery, Vol. 1.
15. Fansler—Pre-Operative Catharsis; Lancet, 40:606, November, 1920.
16. Fleming—Factors Which Contribute to the Safety of Operations; Texas Med. Jour. (State), 15: 208, October, 1919.
17. Foster—Preparation of the Field of Operation; Surg. Gyn. and Obst., 24: 375, March, 1917.
18. Geist, Samuel B.—Effect of Preoperative Digitalization in Reducing Post-Operative Complications; Annals of Surgery, Vol. 78, No. 6, 1923.
19. Geits and Somberg—Pre-Operative Digitalization, A Method to Reduce Post-Operative Complications; Am. Jour. of Ob. and Gyn., Vol. 4, No. 2, 1922.
20. Geist and Goldberg—Digitalization Before Operation; Ann. of Surg., 78: 693; December, 1923.
21. Glass and Wallon—Pre-Operative Treatment for Post-Operative Complications; Jour. Tenn. Med. Assn., 14.
22. Greenthal, Roy M.—The Pre-Operative Care of Infants and Children; Med. Jour., Vol. 22, No. 7, 1923.
23. Gundrum and Harris—Pre-Operative Examination; Calif. St. Med. Jour., Vol. 21, No. 3, 1923.
24. Hastreiter—The Pre- and Post-Operative Care of Surgical Patients, With Special Reference to Hazardous Risks; Am. Jour. of Surg., Vol. 37, No. 10, 1923.
25. Knavel and Koch—Pre-Operative and Post-Operative Care of Patients; Surgical Clinics of North America, Vol. 6, No. 4, 1926.
26. Kellog—Safe Methods of Pre-Operative Care; Am. Jour. of Surg., 34: 261; October, 1920.
27. Lowman—Pre- and Post-Operative Care; Calif. Med. Jour., 19: 195; May, 1921.
28. Lyman—Pre- and Post-Operative Care; Wisc. Med. Jour., 21:45, July, 1922.
29. Lyman, J. V. R.—Pre-Operative and Post-Operative Treatment and Care of Patients; Wisc. Med. Jour., Vol. 21, No. 2, 1922.
30. Mayo, W. B.—Preparation and Care of Patients for Operation; Journal-Lancet, 36: 1, January, 1916.
31. McGowan, F. J.—Ante-Operative Therapy; Surgical Clinics of North America, February, 1925.
32. Miers—Pre- and Post Operative Care; Am. Jour. of Surg., 35: 223; August, 1921.
33. McIntosh—Home Surgical Experiences in Pre- and Post-Operative Care; Med. Record, 101: 457, March, 1922.
34. Moore—Enema and Purge Before and After Operation; Texas Med. Jour. (State), 15: 208, October, 1919.
35. Moynihan, Sir Berkeley—Before and After Operation; The Lancet, Vol. 211, October, 1926.
36. Patterson, Herbert J.—The Treatment of Patients Before and After Abdominal Operations; From the Practitioner, No. 686, Vol. CVX, No. 2, August, 1925.
37. Peet—Pre-Operative Care With Reference to Purgation; Jour. Am. Med. Assn., 71: 175, July, 1918.
38. Percefull—Care and Comfort of Operative Patients; Kentucky Med. Jour., 14; 14:249, May, 1916.
39. Pratt—Preparation of the Operating Field; Jour. Am. Med. Assn., 79: 689, August, 1922.
40. Schulling—Pre- and Post-Operative Care; Jour. Ia. Med. Soc., 35: 223.
41. Shephard—Past and Present Surgery; Canadian Med. Jour., 32; 116, August, 1917.
42. Sohmer, A. E.—Pre-Operative and Post-Operative Care of Surgical Patients; Minnesota Medicine, Vol. 7, No. 2, 1922.
43. Walters, Waltman—The Pre-Operative Preparation of Handicapped Surgical Patients.
44. Wells—Prevention of Shock; Am. Jour. of Surg., 4:68.
45. Yates—Care of Patients Before and After Operation; Am. Jour. of Obst., 74:1005, December, 1916.

## THE PRE AND POST OPERATIVE TREATMENT OF MAJOR SURGICAL CASES\*

E. B. HOWELL, M.D. and F. A. HECKER, M.D.,  
Ottumwa

Since the beginning of the science of major surgery of the present standard one of the greatest problems has been the estimation of the patient as a surgical risk and proper methods to be employed to attain a condition of operative safety.

Before the present standard of aseptic technique had been established sepsis was the greatest fear and the majority of patients encountered before this period did not present the problems that the patients of today do.

The patients of the present time are not as good surgical risks as the patients were a quarter of a century ago. Many of the patients operated on at this time seem to have less resistance. This condition probably is due to the modern methods of living. Contributing factors are lack of physical exercise and over indulgence of improper food.

The outstanding factor determining the degree of safety by which a patient may be expected to pass through a major surgical procedure depends on the extent of the acid intoxication present.

About five years ago a study on the problem of acid intoxication was begun. At this time the problem was not confined to surgical cases but also included medical cases. When these studies were begun the extent of acid intoxication present was determined by the Van Slyke-Cullen and Fredericia methods. The first method was discontinued because the patients or rela-

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927.



tives objected to the intravenous puncture. The second method was not used because many of the patients were unable to co-operate in the collection of the sample of alveolar air. Therefore a more simple method was sought. For practical purposes the Ph. of the urine offered a simple and workable method for the determination of the extent of the acid intoxication present.

It has been recognized and practiced for some time that an acid intoxication may be overcome by rest, increase of fluids, alkalis and carbohydrate diet. Researches relative to food requirements have shown that the needs of the human body cannot be entirely met by an adequate supply of proteins, fats, carbohydrates and their inorganic salts and water. About ten years ago the physiologists turned their attention to the caloric value of foods. The physiological and biological chemists began their study experimentally of substances contained in food and soon learned that many of the foods contained substances which were of vital importance in the maintenance of the health and development of the experimental animals, to these substances they gave the name vitamins.

Tests for the presence of vitamins have been devised and described by Fearson, Wilmot, Chick and Roscoe, Drummond and Howard, Carr and Price. We have definite evidence as to the value of vitamin A in the treatment of rickets and of vitamin B in the treatment of Beri-Beri. Most persons who have major surgical complaints have not as a rule eaten the foods which are necessary for the maintenance of a normal balance of their bodies, hence it is rational to consider a diet composed of foods containing the correct vitamins and chemical substances as an important part of the pre-operative treatment. The patient should be hospitalized not less than from one to three days before major operation. Time is precious in the acute surgical cases and the foregoing method cannot be utilized. It is therefore necessary to employ some other method to meet the emergency, hence a buffered solution having a Ph. of 7.00 to which dextrose was added was used intravenously. A patient given a buffered solution containing dextrose does not re-establish an acid intoxication as quickly as when other methods are employed.

Clinically a patient suffering from acid intoxication is nervous, irritable, does not rest well, complains of being tired, does not eliminate well and takes an anesthetic poorly. Bolliger found in his experiments with chloroform, ether and ethylene gas anesthesia that the inorganic

phosphates are reduced to a low level when compared to the normal, hence the reason for adding phosphates to the buffered solution which is given intravenously before operation.

A full course of digitalis is of value in a certain class of cases. The bowels are washed out with an enema but are not purged or irritated. Fluid intake is encouraged and restful sleep is promoted by mild sedatives, as a nervous, wakeful patient is never a good risk.

When a patient is anemic, a transfusion before operation is indicated but if sepsis is present without marked anemia an intravenous of buffer solution has been found to be more beneficial than a transfusion of blood.

The reasons for the above method of procedure coincides with that of Starling, namely, that the pre-operative purging removes an important hormone secretion which activates the pancreatic enzymes and acts as a stimulant to the bile secretion and succus entericus is largely removed. This leads to an abnormal intestinal digestive function and production of acid bodies in excess because of the deranged fat metabolism. This deranged metabolism of fat is also brought about by preliminary starvation which exhausts the liver of stored glycogen which results in an acid intoxication due to an improper elimination of the pancreas of a sufficient amount of insulin to care for subsequent introduced carbohydrates. The pancreas has a double control as to the release of insulin, the one being chemical and the other being physiological through the autonomic nervous system. Working on this theory it was found that insulin is seldom necessary when the system is properly supplied with salts present in the buffered solution.

Let us now consider the post-operative treatment. In the elective surgical cases if the foregoing pre-operative treatment has been carried out the post-operative treatment is simple. First, the patients are properly protected by chest jackets and warm blankets, and are not permitted to come in contact with clothing which is moist with perspiration. Second, they are kept free from severe pain by the use of opiates. It is often necessary to change from one opiate to another to obtain the best results.

The early administration of hot fluids containing some form of sugar providing no nausea follows is beneficial. The bowels are not disturbed with enemas or laxatives for three or four days. If the colon fills with gas the rectal tube is used as often as indicated. If there is excessive and persistent vomiting the lavage of

the stomach with the stomach or duodenal tube is beneficial. Many times the duodenal tube is preferable to the stomach tube for the reason that when it enters the duodenum foods and alkalies may be introduced. Many times the vomiting is relieved by counter irritation over the epigastrium.

For acute dilatation of the stomach a change of position, lavage of the stomach, the judicious use of pituitrin, counter irritation over the epigastrium and attention to the acid intoxication by the use of buffer solution intravenously usually corrects the condition satisfactorily.

If the patient presents symptoms of paralytic ileus or obstruction these complications are treated surgically by performing an enterostomy by suturing the tube firmly in the bowel but the bowel is not fastened to the parietal peritoneum until the tube has been in place for three or four days. Traction is now made on the tube and the bowel and the omentum are now brought in contact with the parietal peritoneum. The reason for not anchoring the intestine to the parietal peritoneum at the time of the operation is that it causes less irritation and the peristaltic waves are not as frequent or violent if there is free mobility. For aneuria fluids are given by mouth, by rectum, subcutaneously and intravenously and caffein sodium benzoate is often employed.

The observation of patients who have received the buffered solution is that they have increased tolerance for anesthesia, that their resistance to infection is increased, that it is not necessary to employ insulin when sugar is administered with buffered solution, their reserve forces are conserved more than when the patients are left to their own resources. The usual post-operative complications are markedly reduced.

#### Discussion on Papers of Drs. Burnett and Howell

**Dr. John F. Herrick, Ottumwa**—The pre- and post-operative care of surgical cases is certainly one of very great importance. In our treatment of surgical cases we have gone through several stages, as Doctor Woods mentioned today, and now we are in the stage of physiological care. One of the conditions that we find in many surgical diseases is that of an imbalance of the secretions and fluids of the body. We may have an alkalosis, but usually there is a tendency to acidosis, that is, an increase of the acid content of the body. It is the result of sickness or debility preceding the operation and is more common in chronic than in acute conditions. It has been mentioned here today that in acute surgical conditions the patients often recover very promptly and with little trouble. In the less acute and in chronic conditions we have an imbalance of

the secretions of the body. The ultra-scientific method of dealing with this condition would be blood chemistry to determine the actual alkaline and acid reserve of the body, determining the Ph. of the blood. That, however, required special laboratory manipulation and some very competent one to do it. As related in the paper, Doctor Hecker has worked out a relatively safe method by means of ascertaining the Ph. of the urine. This makes it easier for, and less disturbing to the patient and has been quite effective, and, as stated by Doctor Howell, the results have been comparatively the same as where blood Ph. determination has been made. The development of a buffer solution that will cover the requirements of the individual is most desirable. These cases are not all alike. This buffer solution can be combined with glucose if necessary, especially where there is an exhaustion due to the sugar reserve being very low. That can not be determined by urinalysis, but could be determined by blood analysis. However, in the experience of the essayist it is evident that a fair judgment can be made based on the urine as to what the requirements are regarding this addition to the buffer solution. The essayist did not present any statistics bearing on the success of this treatment. However, I am sure from personal knowledge that the success has been very marked in these cases, and I sincerely congratulate Doctor Howell and Doctor Hecker on working out some matters that are of real value to this class of patients. I am a firm believer in plenty of time given for preparation in these chronic cases, for time is sometimes the most important element.

**Dr. Murdoch Bannister, Ottumwa**—I believe that this work has been carried out in Ottumwa more than in any other place in the state, and it has brought about excellent results. My attention was first called to the use of alkalization by Dr. Hill Hastings, now of Los Angeles. I came in contact with Doctor Hastings while in the service. He was performing tonsillectomies on the boys in the army and I noticed that prior to operation he gave them alkalies and he had little post operative trouble. Of course, tonsillectomy is not a serious operation, but he liked to have his work go smoothly, and after tonsillectomy it is unpleasant to have the patient vomit. When it is possible to get the patient one or two days before the operation, I have given 20 grains of sodium bicarbonate every two hours and have had but little vomiting. There is only one objection I ever found to the intravenous procedure; occasionally there is rather a sharp rise of temperature following. However, as a rule this does not amount to much except that at the time it is quite inconvenient. Convalescence, from the standpoint of post-operative vomiting, is certainly benefited.

**Dr. Wm. C. Newell, Ottumwa**—I have had occasion to observe some of the work of Doctor Howell and Doctor Hecker and also to use the treatment



Doctor Howell has described, and these methods certainly give a much better convalescence and make it possible to operate upon cases that formerly we felt were quite a hazard. With a great deal of pre-operative care we can reduce a case to almost a simple operation, which under the older methods we would have felt was a hazard. In the working out of this procedure Doctor Hecker has been very enthusiastic. In a paper read by him two years ago he set forth the results, and I believe that every one should give the buffer solution at least a trial because it is very much worth while.

**Doctor Howell**—I want to compliment Doctor Burnett. In my paper I did not go into detail regarding intravenous medication as used in a pre-operative way. We have been doing that only a short time and have not many cases to report, but have used it in a sufficient number to convince us that it is going to be of great value. In fact, some patients that I am sure would have had a very stormy convalescence, passed through as easily as do the ordinary, simple cases. The advantage in the use of a buffer solution properly prepared to meet the indication in the individual case, is that it can be employed in acute cases. Some of the acute surgical cases develop an acid intoxication very rapidly, in fact in a few hours, and it was in the endeavor to find some method to relieve this condition that led us to work along the lines described. This method is now being used under the direction of Doctor Hecker in the Washington University Hospital at St. Louis, and I am sure that in a short time there will be published an extensive report on a large number of cases.

**Doctor Burnett** (closing)—Doctor Howell is to be congratulated on the method he has developed. It is easily and simply done. Doctor Herrick hit the nail on the head in regard to one very important point, viz.: That in the cases under discussion the tissues are bathed in a surplus of abnormal fluid which not only devitalizes the tissues but retards healing and recovery. I think in a great measure proper pre-operative treatment of a patient will remove the abnormal conditions which accelerates recovery. One reason that many emergency operative cases make such a complete and prompt recovery is due to the fact that these abnormal tissue fluids have not had time to develop. Crile has written considerably concerning his investigation of the response of other organs to an abnormal temperature or liver. This was proven during the war when many operations were hastily done in very unfavorable circumstances most notably in cold operating rooms where he found that as the temperature of the liver dropped body-metabolism was slowed up in proportion of 10 per cent for each degree of decrease in temperature. The prevention of shock and the maintenance of the body metabolism are influenced by the use of diathermy run continuously during the operation and directed towards the maintenance of normal temperature of the liver.

## OBSERVATIONS IN RHINOLOGY\*

W. W. PEARSON, M.D., F.A.C.S., Des Moines

The principal nasal functions are olfactory, respiratory and vocal. The cavity of the nose also serves as the drainage cavity for the accessory sinuses, the lacrimal secretions, and the ventilating shaft to the eustachian tubes.

In recent years, more particularly following the war, because of injuries about the face and nose, the opportunity has been presented for more plastic operations on the nose than formerly. Many representative men have written and worked along this line and developed this branch of surgery. Unfortunately there have also been those border-line workers, of rather limited training, who have been practicing this in a manner suggestive of quackery. Last year's report from one state's board of health showed several deaths resulting from work done by the beauty doctors.

Deformities of the nose are, in some cases, such as to justify operation for their correction. No doubt we have all had the experience of having patients who insisted on the correction of slight nasal deformities. I recall one individual who was determined to have an operation for the correction of fancied irregularities which required very close inspection to detect.

Some cases, in which portions of the nose have been destroyed, have demanded rather radical procedure for their correction. I remember a miner whose head had been caught in such a way as to ruin one eye and so crush the upper part of the nose that there was a large perforation at the base. It was so large that one could look through the nose in every direction and into the nasal pharynx. It was possible for me to obtain a large flap from the middle of the forehead, bring it down and double it on itself so that the epithelium lined the under portion of the flap. The margins of this flap were so joined that the opening was entirely closed and the contour of the nose preserved with very little deformity. Preparatory measures must be employed and suppuration done away with as far as possible before undertaking any operation of this type.

A gentleman from New York, whom I had known for several years, had a nose which was so long that its point almost touched his upper lip. Functionally the nose was good—but it was not especially good to look at. So I con-

\*Presented before the Seventy-Sixth Annual Session, Iowa State Medical Society, Council Bluffs, Iowa, May 11, 12, 13, 1927, Section Ophthalmology, Otology and Rhino-Laryngology.

sented to remove the point. This was done by shortening up the frame work through intranasal measures. It is also possible, as I have done, to remove the hump from a nose through the intranasal route. Occasionally saddle noses require correction. During the time of the use of paraffin I used it in a limited way and never have I had a bad result. One case of congenital double entrance to the left nares was easily corrected and the size of that wing reduced by resecting a portion. Results from some of these operations, in the hands of experts, are most gratifying—the entire facial expression being changed much to the delight of the individual. However, when it is practical, I think it is better for practitioners of rhinology to refer these cases to men who are more or less constantly engaged in this work. Infections, in some cases, have been followed by the most distressing complications.

The vestibule or ante-chamber of the nasal fossa is lined with skin supplied with vibrissae, sudiferous and sebaceous glands. Our chief interest here is the danger of infections of different types. Many infections result from the extraction of the hairs which, in some people, become prominent and grow out of the nose. Not only is the suffering severe, in some of these cases, but the danger from the extension of infection, which occasionally develops into erysipelas, cavernous sinus thrombosis, or meningitis, is great.

The cartilage of the septum, from the membranous covering of which ninety odd per cent of all nasal hemorrhages occur, often demands our attention. Blood vessels, broken in this membrane, sometimes leave hematin crystals so as to interfere with the nutrition, resulting in ulceration and a certain percentage of perforations. For thirty years I have been looking for a tuberculous process, in the nature of a tubercle, in this location but I have never seen one.

Trauma that has resulted in hematoma frequently develops in abscess formation. It is essential to drain the abscess early to prevent necrosis of the cartilage with the ensuing nasal deformity. It may be well, at this point, to call your attention to the importance of testing the density of nasal structures with a probe in making a nasal examination.

One who has not gone through the experience of treating septal conditions for thirty years or so cannot appreciate the great advantage of septal resection over the sawing, punching and cutting operations that preceded it. By means

of resection we are able to restore not only the nasal passages but also to see a nose with a crooked exterior assume more nearly a symmetrical form.

Turbinal bodies, with their unusual anatomical and histological make up and sympathetic nervous supply, command a great deal of our attention. Hajek, in his instruction in rhinology, took great pleasure in demonstrating the turbinal bodies which he injected with colored fluids. He dwelt upon the manner in which the arterial capillaries led the blood into the pockets whose walls consist of non-striped muscle tissue from which the venous capillaries lead the blood away. These bodies, under the influence of the autonomic nervous system, supply the heat and moisture by which the air is raised to the temperature of the blood and saturated with moisture before the pharynx is reached. It has been estimated that, in twenty-four hours, over a litre of water is supplied by the nose. The mouth, pharynx and trachea have no arrangements for the supply of any such quantity to the inspired air. When these bodies are out of commission it is easily understood how the development of catarrhal conditions along the upper respiratory tract and even to the bronchi is favored. Early in my practice these bodies received a great deal of consideration from rhinologists. Many times they were removed practically entire—for example by the Jones' Spoke-shave. The dryness of the throat and the ensuing discomfort soon resulted in the discontinuance of this practice.

A nose, to function perfectly, must have properly functioning turbinals. As is often the case the pendulum swings too far in the opposite direction. We all recognize the necessity of reducing these bodies under certain conditions. The relief experienced by removing the mulberry tip of the posterior end of the inferior turbinal has been observed by all and it is necessary, at times, to remove or lessen the volume of the inferior turbinal by means of scissors, snare or cautery. Experience, however, has taught us that we must not be too radical in this procedure. It is seldom that the inferior turbinal impinges upon the outlet of the lacrimal duct so as to impair its function, but such is occasionally the case.

In more recent years the middle turbinal with its neighboring structures has taken up more of our time. Sinuses emptying about it, especially when their products are the result of suppuration, lead to changes which, in many instances, are beyond repair. It is possible to remove the middle turbinal and escape the drying of the



pharynx which results from the removal of the inferior turbinal.

It is our duty, in the case of acute infection in the nose, to endeavor to determine the presence or absence of infection in the frontal ethmoid or antrum. The use of an application of an anesthetic followed by adrenalin, or some of the newer substitutes, has aided us greatly in this determination.

Surgical measures used in the upper portion of the nose cannot but impair the olfactory function. In many of these cases this sense is seriously diminished or lost because of the disease that requires surgical treatment. I have had but little experience with some of the suggested crushing operations on the turbinals. It is a method that has not appealed to me especially in the region of the middle turbinal. The damage done to the tissue resulting in impaired circulation favors the development of infection, and the possibilities of opening avenues leading to the cranial cavity have always, at least theoretically, seemed to me an added danger.

The posterior ethmoids whose points of drainage are so prone to become occluded by the hypertrophied adenoids, especially in the case of children, must be freed by the removal of the adenoids if the individual is to escape a chronic process.

The sphenoid, in my experience, is not so often the cause of trouble. This does not mean, however, that I have not had my experience with it in the matter of drainage. While it is not difficult to remove a good portion of the anterior wall it has not been my good fortune, after having secured what was apparently good drainage, to see a reasonably prompt recovery. Too often reinfection occurs after an apparent healing. I often think of the case of a youngster who came to autopsy in whom scarlet fever had, as a complication, a middle ear and mastoid which was operated with apparent success. However, death resulted from meningitis which had its origin in an extension from the sphenoid.

The mucous polyp is usually regarded not as a new growth but as an over growth of the structures normal to the part in which it originates. It may vary in structure from a simple edema of the membrane up to what may be regarded as edematous hypertrophy. Microscopically it consists of a loose fibrous stroma, the meshes of which are filled with serous fluid. Glands, vessels and nerves are found in this growth. Zucker-Kandl made the statement that polyps are found in eight out of nine bodies examined in the post-mortem room. They are not

very common under the age of twenty. One seldom sees them in children. McKenzie found only six out of ten thousand in children, the youngest being six and one-half years of age. In young people the choanal or naso-antral polyp is most common and is generally solitary.

The ordinary ethmoidal polyps are frequently bilateral. They are most commonly found in this region and, many times, the ethmoidal cells are filled with polypoid material. There is no doubt that there is a period when this condition exists, when ordinary nasal examination does not reveal it.

As to whether the polyp has its origin in diseased bone and spreads outward or whether the mucous membrane is primarily affected with a secondary invasion of the bone has not yet been determined. We do know, however, that ethmoidal disease with chronic suppuration is most commonly associated with polyps. Why, in some cases, simple removal frees the patient from annoyance for several years and, in other cases, the polyps seem to recur within a few weeks, is difficult to explain. Very extensive operations have been proposed for the thorough eradication of these growths. Because of some bad results in the hands of radical operators, the majority of rhinologists are, in my opinion, disposed to operate in stages, feeling that there is much less risk, and that repeated operations lead to ultimate relief. The removal of a single large choanal polyp gives a most gratifying result. If it recurs it is at much greater intervals.

Any reference to the sinuses, in a paper of this type, must, of necessity, be brief. A few years ago radical operations were much more in vogue than at present. Any nasal infection is prone to extend to the neighboring sinuses. It is not always clear what determines this; but irregularities, hypertrophies, and in fact anything that interferes with drainage is a predisposing factor. Once a sinus is involved the arrangement of the sinus openings has much to do with determining whether the process will clear readily or will develop into a chronic condition. Within the year I have seen one case of frontal lobe abscess resulting from a suppurating frontal sinus. Any nasal sinus may develop a condition that demands immediate radical treatment. But when it is possible to secure the results by employing an intranasal route it is certainly much more satisfactory to the patient. Suppurative ethmoiditis is prone to lead to orbital complications and, where the orbital periosteum is raised, we all appreciate the wisdom of employing drainage. This should be done without damage to the

orbital periosteum with the resulting orbital infection.

The maxillary antrum has long been known as a seat of trouble. The importance of the antral complications following diseased teeth is better appreciated. It has been pointed out that, in many of these diseased teeth conditions, the lining membrane of the antrum is not seriously involved and becomes infected only after the curettement of a root cavity in which the curette pierces the antral lining.

The opening of the sphenoid is not often necessary. As I mentioned before the results of drainage here have not, in my practice, led to prompt recovery. Many cases which have appeared to be healed seem to become readily re-infected.

Adults frequently present themselves with a complaint of excessive post nasal discharge following acute colds. In a large percentage of these cases, especially in narrow noses, I find a posterior ethmoidal infection. Contraction of tissue and aspiration usually give prompt relief.

Recurring acute infection of a frontal sinus has, for its cause, an interference with the drainage either by the hypertrophied tip of the anterior middle turbinal or some peculiarity in the course of the frontal duct through the anterior ethmoidal cells. Employment of the proper measures here not only hastens recovery but lessens the danger of a recurrence of the infection.

When one of the sinuses is involved over a number of years the lining membrane may become ulcerated or polypoid. In these cases the ingenuity of the rhinologist is taxed to the utmost to secure the desired relief.

The part played by infected sinuses, particularly antri in children, as a focus of infection causing many diseases, is receiving much attention and, in time, more definite conclusions may be drawn. Let us not forget the value of roentgen pictures as an aid to diagnosis as well as an aid to sinus operation.

It is necessary to say but little concerning foreign bodies in the nose. The history of one-sided nasal infection, particularly in a child, over a period of time, justifies the suspicion that a foreign body may be the cause. Most particularly, I wish to urge care in its removal. The use of a thin screw instrument, or a straight instrument that allows the tip to be raised at right angles after it has passed the foreign body is of great service. The last thing that should be done is to push the foreign body back into the pharynx in the hope that it will be expelled by a

cough. The danger of its entering the trachea is not to be overlooked.

As regards rhinorrhea the causes are so varied and the symptoms so well known that it is scarcely necessary to dwell upon it. But when there is a constant dripping from the nose and a chemical analysis of the fluid proves it to be cerebro spinal fluid we must give it serious consideration. St. Clair Thomson collected a number of these case histories and no doubt you are all more or less familiar with the brochure which he published. In the latest edition of his text book he says, "It has not been established by what route the fluid escapes from the skull into the nose. It might be along the peri-neural sheaths of the branches of the olfactory nerves or by a communication between the subarachnoid space and the lymph channels of the nose, or by the simple solution of continuity in the dura mater lining of the anterior fossa of the skull." Intranasal operations, in these cases, carry a greater risk because of the possibility of extension of infection. Thomson, in a post-mortem examination of one of them, found the cause to be a syphilitic pachy-meningitis.

There is scarcely a disease of the nose, as well as elsewhere, without syphilis entering into consideration. I wish to call your attention particularly to the specific perichondritis and perioritis of the septum, posterior choanai and the ethmoidal region. I have seen several cases in which a submucous resection has been recommended to relieve embarrassed nasal respiration when the cause was a syphilitic involvement. The statement has been made that no septal resection should be decided upon without the exclusion of lues. Several years since Sluder said that he had performed septal resections on patients and dismissed them with apparently excellent results. A few months later, however, when he had the opportunity to re-examine them, he found the septum largely destroyed. This he attributed to lues.

Nasal obstructions that bleed freely on handling should always arouse the suspicion of malignancy. Many of these cancerous conditions of the nose metastasize late. Because of this the courageous, painstaking operator secures a certain percentage of good operative results. In many instances, however, the resulting deformity is most objectionable. The possibilities of plastic surgery to correct this, after a suitable length of time has elapsed, does much to overcome the disfigurement.

Irregularities in the floor of the nose should always direct one to the upper alveolar process



to see if the normal number of teeth be present.

Occasionally a partial or complete bony or membranous septum exists on one or both sides between the choanai and post-nasal space. In the few cases that I have seen but little difficulty was experienced in the removal of the obstruction and the securing of a normal nasal respiration.

The conclusion of this paper would not be complete without some reference to the sympathetic and pari-sympathetic distribution in the nose. It has been repeatedly demonstrated that local anesthetic applied to the anterior portion of the nose would relieve many cases of painful dysmenorrhea. The discussions that have gone on associating the middle turbinal and ethmoidal regions of the nose with asthma are countless. I have seen patients who complained of low grade irritations about the anterior end of the inferior turbinal which have resulted in the watery eye without epiphora. Many of these nasal reflexes, I believe, are through the sympathetic nervous system about which so little is known.

---

### INSULIN IN NON-DIABETICS\*

---

H. HAUMEDER, M.D., New Hampton

When I was asked to give a paper at this meeting, I selected the use of insulin in non-diabetics, because I am at present treating several such cases with very good results.

While there is a vast amount of material in English, French and German literature, I was surprised to find nothing in the American bibliography except the use of insulin in post-operative acidosis and vomiting of pregnancy. I will briefly mention a few of its uses but wish to go more into detail in discussing the value of insulin administration in pathological thinness and diseases of the liver. Insulin is used extensively all over the world in combination with glucose solution to combat post-operative shock and acidosis, and, should be used more than it is in preparing certain operative cases, particularly patients with diseases of the biliary system. Its action is thought to be similar in pernicious vomiting, but, I believe that there is a rather specific action against vomiting in addition to the lowering of acidosis and increasing the appetite. Also, the psychic effect in these cases must not be disregarded.

In various countries of Europe, insulin is used in treating inoperable cancer cases. According

to Otto Warburg's studies, the cancer cell not only oxidizes sugar but also ferments sugar to lactic acid, and, that it is able to live without oxygen only from sugar solution. In this instance the fermentation of sugar is such an intensive one that tumor cells form in one hour lactic acid, as much as 10 to 12 per cent of their own weight. These studies by Warburg induced experiments with insulin on implanted cancer in mice which revealed that these transplantation tumors are growing only half as rapid in mice treated with insulin as in untreated control animals. The use of insulin in treating inoperable cancer in men has proved to be rather unsatisfactory. The cachexia seems to progress more rapidly and an arrest in the growth of the tumor was only reported in two or three cases.

Adlersberg and Perutz, use insulin in local application on slowly healing ulcers and burns, in order to increase the vitality and regenerating power of the tissues. They apply 20 to 30 drops of the drug directly to the ulcer and cover it with sterile vaseline once daily. They explain the action by change of function of the tissues caused by increase of their carbohydrate contents. The action of insulin is a local one and not due to absorption through the blood.

Goffin and Lawrence were the first to use insulin in treatment of thyro-toxic diseases. I have no personal experience with such cases but shall mention briefly the results as stated by Jaksh Wartenhorst in his lecture at the Interstate Post-Graduate Assembly of North America. He treated six cases with the total amount of 2,000 to 2,400 units of insulin. The metabolic rate fell in all cases from 20 to 30 per cent but it has to be mentioned that two of those cases showed also disturbances of the carbohydrate metabolism, that is, hyperglycemia and alimentary glycosuria. Of these six cases three showed marked improvement of their tachycardia tremor and sweats. However, improvement in each case was of short duration.

As early as the year 1913, W. Falta of Vienna, expressed the opinion that the hormone of the islands in the pancreas plays an important part in some cases of obesity. His explanation was principally this, that there is no assimilation of sugar without this hormone. In severe cases of diabetes not only our reserve of carbohydrates but also of proteins and fat is consumed. On the other hand we cannot gain in weight with protein and fat alone. Assimilation of carbohydrates aids in putting on protein and fat. To gain weight a functioning island organ is necessary. With the discovery of insulin he was able

\*Presented before the Midsummer Meeting of the Austin Flint-Cedar Valley Medical Society, Iowa Falls, July 12, 13, 1927.

to establish his theory and today there is a considerable amount of German and French literature on the subject. In asthenic individuals with all their complications of ptosis, gynecological symptoms of backache, dysmenorrhea, sterility, in arterio sclerosis, in convalescence after operations or infections, even in certain cases of tuberculosis there seems to be a large field where gain of weight is essential to obtain results. According to the foreign bibliography, large doses, from 40 to 100 units a day are used, but, personally, I have never exceeded the amount of 10 to 15 units three times a day with the following meal rich in carbohydrates. At least two grams to the unit but preferably much more, never fails to give results in properly selected cases. Rest in bed is not necessary since a moderate amount of muscle training is of advantage in those cases. Insulin increases the appetite by lowering the blood sugar and causes a retention of water. The gain in weight is not an apparent one, caused by edema. The imbibition of the cells and of the connective tissue causes the new formation of living tissue. The transformation of carbohydrates to fat may also be a factor in this gain of weight. That these patients do not lose weight after discontinuing the treatment, that diuretics do not increase the diuresis more than in normal individuals, also proves that it cannot be water alone that causes the gain.

When using this treatment in tubercular patients where the lack of appetite cannot be explained by the specific infection, special care has to be exercised to avoid focal reactions and elevation of the temperature. Two to three times a week one administration of ten units before supper will often improve the appetite in a surprising manner and with lasting results.

The use of insulin to improve weight in infants should be restricted to very few cases. In acute or chronic infections the resistance of the little patients will be diminished by the retention of water. In severe alimentary intoxications combined with sudden loss of weight and constant diarrhea, insulin will often be of much benefit but the main treatment should be the mother's milk, buttermilk, etc. The improvement by insulin is due partly to water retention in the dehydrated tissues, and partly by diminishing the diarrhea through this water retention. In chronic vomiting of children insulin will often stop the nausea. At least 5 grams of carbohydrates for each unit are required in infants and small children.

In using insulin as a means to improve appetite and increase body weight the psychic effect is

also of vital importance. A patient who has been kept in bed for weeks, who has received all kinds of diets, tonics, etc., without noticing any improvement will lose confidence in his medical advisors and in himself, and gradually become a depressed hypochondric individual. Not long ago I had occasion to see a patient who gave a history of frequent gall bladder colics. Eight months before he entered the hospital he had a very severe attack. The jaundice did not clear up for the following six months and he gradually began to lose his usual good appetite and suffered continual pain in the right upper abdomen. The loss of weight during the eight months amounted to eighty pounds. A diagnosis of rupture of the gall bladder was made and the abscess drained. The removal of the infection did not improve the appetite and the patient became extremely discouraged. About four weeks after the operation, I suggested insulin and the patient was given 10 units three times a day followed by a large amount of carbohydrates. The appetite improved instantly. The patient gained about fifteen pounds in weight during the first two weeks, at which time the insulin was discontinued. The weight continued to increase steadily, and, it was particularly gratifying to observe this man regain his usual optimism.

Thus, we see the primary advantages of this treatment are, first, the rapid improvement, and second, the short time required, two or three weeks of insulin administration being usually sufficient. No rest in bed, no dieting are necessary.

Of predominant interest to me is the influence of insulin in diseases of the liver. There is a close connection between the vitality of the liver cells and their accumulation of glycogen. Insulin increases the amount of glycogen in liver tissue which in turn increases their activity. This may explain the different reaction of patients with liver diseases on insulin, as the especially marked, early and persistent hypoglycemia, as changes in water retention and water output and probably also in the nitrogen metabolism.

R. Franklin Carter in a recent issue of the *Annals of Surgery* insists that no gall bladder case actually ill for thirty-six hours should be operated on without first determining the  $\text{CO}_2$  combining power. If it is found to be below 40, he suggests subcutaneous or intravenous administration of glucose and saline solutions. Insulin will increase the  $\text{CO}_2$  faster and even without the hypodermic use of sugar.

In icterus catharrhalis the jaundice disappears in five to ten days without any other



therapy. I use insulin in catharral jaundice only in severe and long-standing conditions. Perhaps 10 to 15 units three times a day, followed by large amounts of carbohydrates with apparent result. Icterus catharrhalis is often a harmless disease. However, after the war, I remember seeing in Vienna, many cases of acute atrophy of the liver where the sudden onset of the coma came so unexpectedly, that I am always fearful in every case where the jaundice is of long duration.

Itching in any case of jaundice may be relieved by insulin. It is especially helpful in cirrhosis and cancer of the liver. In these cases, also a temporary improvement of appetite and weight may occur.

Contra-indications for the use of insulin are acute infectious diseases, the time of climacterium and probably of menstruation.

#### BIBLIOGRAPHY

- Otto Warburg: *Klin. Wehnschr.*, 1925, No. 12.  
 Adlersberg and Perutz: *Klin. Wehnschr.*, 1927, No. 3.  
 J. Goffin: *Scalpel*, April 19, 1924.  
 Jaksh Wartenhorst: *Muenchen Med. Wehnschr.*, 1926, No. 38.  
 Falta: *Wien Klin. Wehnschr.*, 1925, No. 27.  
 R. F. Carter: *Ann. Surg.*, 1927, No. 4.

### STATE HEALTH NOTES

JAMES W. WALLACE, M.D., C.P.H.,  
 Des Moines

Deputy Commissioner of Health

#### I. SANITARY CODE

A pamphlet that will be of interest to physicians, and particularly to those physicians who are health officers, has just been issued by the State Department of Health. It is an outline of a sanitary code suitable for cities and towns in Iowa and was prepared for the department by the writer. Appeal is often made to the local physician for advice as to what kind of ordinance a community should have, governing the sale or handling of milk, the disposal of garbage, what should be regarded as a nuisance, what restrictions should be placed on the keeping of animals inside a corporation, etc., etc., and the physician or health officer is often unable offhand to give an outline of what would be a fairly satisfactory ordinance dealing with any or all of such problems.

The two objectives hoped for as a result of making public such an outline are (1) that each town and city will see that a satisfactory local code is in existence in its own jurisdiction and will so supplement or amend its present local code as to make it as complete as possible, (2)

that as a result of having some such outline, more uniformity will result in the local ordinances now in existence in different municipalities throughout the state.

The State Department of Health will be glad to forward free a copy of the code to any physician making application for it. Hundreds of copies have been requested by parties in other states, and in our own state many groups of persons are making it the basis of a study of health laws and regulations.

#### II. ACUTE ANTERIOR POLIOMYELITIS

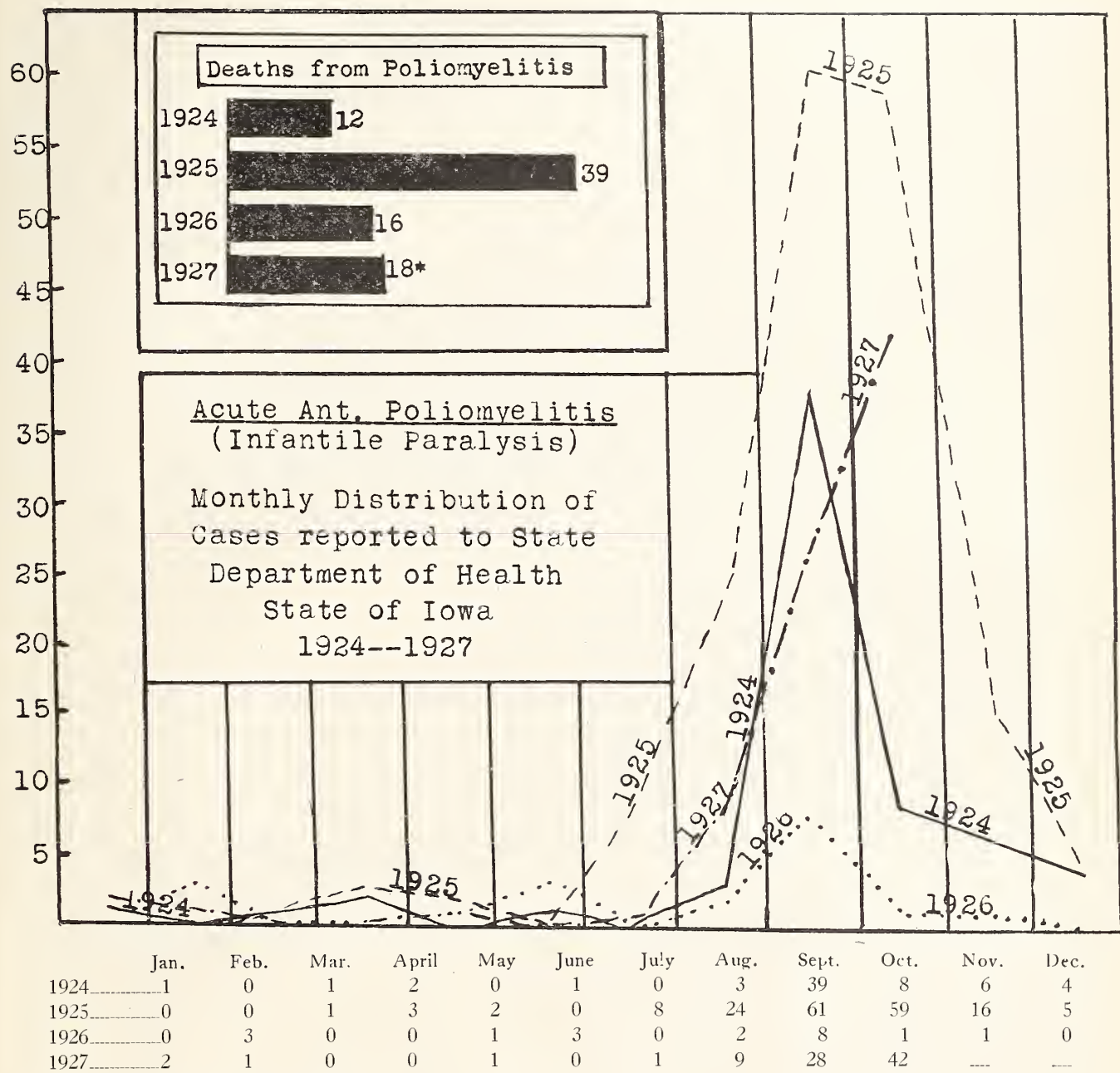
During the last few months unusually large numbers of cases of poliomyelitis have been reported in the eastern, southern and far western states. Under such conditions it would be expected that Iowa would also have more than the average number. This has proven to be the case, but Iowa has had a much lower incidence than most states. A comparison of the number of cases reported for the first ten months of the last four years shows the following figures: 1924, 55 cases; 1925, 158 cases; 1926, 18 cases; 1927, 84 cases.

At the date of writing (November 8, 1927), a total of 89 cases have been reported for the year, five of these being reported in November, viz., 2 at Waterloo (1 death), and one each at Griswold, in Mills county and at Audubon. This last case, however, should have been reported in October.

These figures indicate that of the four years, the numbers for 1927 are exceeded only by those of 1925 when almost twice the number of cases occurred.

The cases this year have been widely scattered over the state occurring in thirty-six counties. The great majority of cases were reported from the northeastern portion of the state, the point of greatest intensity being at Waterloo in Blackhawk county where during the year twelve cases have occurred. The hop, skip and jump nature of the disease is evident when we note that cases occurred at forty-nine different points and in thirty-six different counties. There were thirty-four places in which only one case occurred and seven in which two developed; three places had three cases each; Clinton had 4, Waukon and Sioux City 5 each, Dubuque 6, and Waterloo 12.

With the oncoming of cold weather there is the beginning of a definite decline in incidence of the disease throughout the whole continent. The incidence for the first seven days of November is below the average number, but even with the onset of cold weather the disease has



not wholly died out in the state. By consulting the accompanying diagram a definite idea can be obtained of the seasonal variation and the comparative incidence of poliomyelitis for the last four years.

During the month of September, twelve deaths from poliomyelitis were reported to the State Department of Health. Prior to September, there had been only six deaths for the eight months of 1927, half of the six occurring in August. Places reporting deaths in September were Waterloo, three, and one each for Audubon, Carroll, Clinton, Lamoni, Jones county, Clemons, Ft. Dodge, Henderson and Des Moines. The deaths occur-

ring in September would indicate that at least one-third of all cases proved fatal. This is a higher fatality rate than for 1925 when about 22 per cent died. As this is being written it is noticed that one place reporting a death had never reported a case, so notwithstanding our laws and rules there are some communities that still fail to cooperate by reporting their cases, which makes incomplete all our statistics and invalidates our deductions.

Recently a two page message was sent out by this department to all physicians in the state giving the main public health measures and an outline of the most generally accepted procedures



to be followed in the treatment of poliomyelitis cases during the acute and convalescent stage.

The use of antistreptococcus serum (poliomyelitis) which has been regarded as of doubtful value by many physicians seems to be gaining in favor, and to be becoming more general as many biologic houses are putting the serum on the market.

### III. GENERAL REMARKS REGARDING INCIDENCE OF REPORTABLE DISEASES IN THE STATE

During the month of November, as might be expected, we are having the seasonal increase in reportable disease. The total number of cases being reported weekly now is twice or three times what it was two months ago. This rise in the curve for 1927 is however no greater than the rise for other years. That it is possible to reduce to a considerable extent this seasonal rise is shown in diphtheria.

*Diphtheria* in the United States and in Iowa was more prevalent than usual in the early part of this year, but the marked customary autumn rise has as yet failed to appear in Iowa, as the lowest number of cases is reported for October of any year since 1920 and at that time reporting of cases was much more incomplete than at present. For October of this year only fifty-eight cases were reported. Evidently definite results are following the immunization programs, for recent diphtheria cases have been largely confined to communities where no program or a very incomplete one has been carried out.

*Scarlet fever* is outnumbering diphtheria almost three to one, 136 cases being reported in October. Physicians are frequently asking advice regarding scarlet fever immunization both as to passive and active immunity. It has been shown that only about 10 per cent of those exposed contract scarlet fever, so the general policy adopted by this department is the one advised by Dr. W. H. Park of New York who states that for persons exposed, he does not advise as a general procedure the use of scarlet fever antitoxin on account of the many severe reactions that follow, and he advocates the use of toxin for active immunity in those children showing a positive Dick test "but only when an outbreak threatens and not as a general procedure at other times."

*Smallpox* is now more prevalent than it has been for some months. In October seventy-eight cases were reported. The greatest incidence has been in Boone, Polk, Montgomery and Pottawattamie counties. In November it has spread to Cass county. Already material for 20,000 vac-

cinations has been sent out by this department and the local health authorities are adopting definite measures to stamp out the disease. In six years 1920-1926, Iowa had 9,288 cases of smallpox with 100 deaths. Iowa belongs to the group of states in which vaccination of school pupils may be required for attendance at school where smallpox is regarded as menacing the public health. The average case rate and death rate for the six years for that group of states as against the group where general vaccination is required as a condition of school attendance is 54.9 case rate, .80 death rate for the first group (in which Iowa has a place) as against 9.5 case rate and .09 death rate for the other group. This means that smallpox is only one-sixth as prevalent in the states where vaccination is compulsory and only one-ninth of the number of deaths occur according to population, as compared with those states that require vaccination only when the public is menaced by a definite outbreak of the disease.

---

### ANAPHYLAXIS FOLLOWING THE INJECTION OF 1500 UNITS TETANUS ANTITOXIN

---

GEORGE BRAUNLICH, M.D., Davenport

At 6 p. m. on August 7, 1927, I injected subcutaneously 1500 units of Squibb's tetanus antitoxin (volume 2.5 c.c., expiration date August, 1928) to a four year old girl. About two and a half years ago she had received three injections of diphtheria toxin-antitoxin mixture (3L+). She had never had any other horse serum injected and had never had any asthmatic symptoms.

Immediately after administration of the serum she began to squirm on her chair, probably because of pain at the site of injection (right buttock). At 6:05 p. m. she began to scratch her abdomen with both hands. A few minutes later she said her throat hurt and she wheezed slightly on expiration. Then she wanted to drink milk because her throat felt better when she was swallowing. Next her eyelids and lips puffed up and her cheeks became very red. Then small, blanched, bloodless spots about 0.5 c.m. in diameter appeared in her hyperemic cheeks. She was lying down at this time and appeared quite weak. At about 6:15 p. m. she began to vomit. A few minutes later she said her bowels were going to move and she was placed on the toilet. She vomited some more and her bowels moved. Suddenly she screamed and jumped off the

toilet and fell apparently lifeless to the floor. I picked her up and could not hear her heart. All the signs of urticaria had left her face and she was dead white. I thought she was dead and placed her on a bed and pressed her chest several times with no response. I continued artificial respiration for a while and then gave her 1 c.c. adrenalin chloride (1-1000) subcutaneously, but she had taken a few shallow breaths before this was injected. She continued to improve and by 6:30 p. m. she could recognize her mother's voice. She slept all night at intervals, asking for water about every twenty minutes. This was invariably regurgitated unless she took only a sip. The next day her temperature varied about 102°, pulse 150, respiration 60. She was not very sick and had inconstant varying rashes which did not seem to itch very much. On August 9 she had a blotchy rash on her arms and forearms, which she scratched a little. Her lips were swollen and she did not want to get up. She ate some cereal and milk and a little orange juice. There was no local reaction at the site of injection at any time. The next day she was practically well but she did not want to get up. At 4:00 a. m. on August 11, a severe, typical serum sickness developed, which lasted for forty-eight hours.

In one winter, several years ago, I saw about eight cases of serum sickness all following the administration of Squibb's diphtheria anti-toxin. During this epidemic about half of my diphtheria patients received other brands of serum and not one of these had serum sickness. Squibb's was furnished by the State Board of Health at that time and was always fresh, whereas, as a rule, the other brands were not so fresh.

#### CONCLUSION

1. Fresh serum is a possible source of danger and should be avoided.
2. It is possible to sensitize a patient against horse serum with toxin-antitoxin mixture. Hence if toxin-antitoxin must be used, insist on getting a brand that does not contain horse serum.
3. It is questionable whether tetanus anti-toxin should be given in trivial injuries if the patient has been sensitized.
4. It would probably be better to desensitize in all doubtful cases before administering serum.

---

#### MALTA FEVER INVESTIGATION

Malta fever is not uncommon in Iowa. This conclusion is forced by our experience in the laboratory in the past four months. Nineteen bloods, most of

which were sent for Widal's, gave an agglutination of the organism which causes Malta fever. Twelve of these, on a repeated examination were found to agglutinate in a titre of 1:160, which is diagnostic of the disease. Three others, on one examination, gave good agglutination. The number of positives found varied directly with the number of bloods examined. We feel, however, that there are many cases of Malta fever which are not diagnosed.

An investigation of this disease in the state is now being undertaken. This is made possible by the cooperation of the U. S. Public Health Service. Only through your interest and assistance will this investigation be successful. We may work together in the following ways.

1. All bloods received at this laboratory for Widal's will be examined for Malta fever. You are invited and urged to send wet or dry specimens from all cases with fever of a week or more duration. We are asking the cooperation of the branch laboratories and it is expected that specimens examined by them for typhoid will be forwarded to us for Malta fever. The importance of the agglutination test is well expressed by Craig when he writes, "There are no pathognomonic symptoms of Malta fever. The symptoms observed are so inconstant and confusing that no one of them can be said to be typical of the disease. A differential diagnosis is almost impossible in the majority of the cases without the aid of the microscope and the serum test."

2. An investigation of all or most of the cases confirmed by a positive agglutination test will be made by the state epidemiologist. The object will be to determine, if possible, the source and mode of transmission, and it is hoped that complete clinical records will be obtained.

Malta fever in Iowa is caused by the organism of infectious abortion in cattle or hogs. This disease in animals is present in every county and probably every township. Your patients are exposed. That atypical fever may be Malta fever. Let us help you make the diagnosis and you will help us study Malta fever in Iowa.

A. V. Hardy,  
Acting Head, State Hygienic  
Laboratories.

---

#### NURSES' HOME FOR ST. LUKE'S HOSPITAL, DAVENPORT

Colonel and Mrs. French of Davenport have recently given \$125,000 for the construction of a much-needed building, known as the French Home for Nurses.

For a long time the need of a nurses' home in connection with St. Luke's Hospital has been fully appreciated and it seems fitting that this old family, which has contributed much to the distinction of Davenport, should furnish the means for bringing about this desirable addition to Davenport public service.



The Journal of the  
Iowa State Medical Society

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
RALPH R. SIMMONS, Associate Editor.....Des Moines

Publication Committee

DAVID S. FAIRCHILD, SR., Editor.....Clinton  
TOM B. THROCKMORTON, Secretary.....Des Moines  
OLIVER J. FAY, Trustee.....Des Moines  
VERNON L. TREYNOR, Trustee.....Council Bluffs  
JOHN F. HERRICK, Trustee.....Ottumwa

SUBSCRIPTION \$3.00 PER YEAR

Books for review and society notes, to Dr. D. S. Fairchild, Clinton. All applications and contracts for advertising to office of the Journal, 902 Bankers Trust Building, Des Moines.

OFFICE OF PUBLICATION, DES MOINES, IOWA

Vol. XVII December, 1927 No. 12

MISS VAN ZANDT APPOINTED LIBRARIAN  
UNIVERSITY OF WISCONSIN

Miss Frances B. van Zandt, the efficient librarian of the Iowa State Medical Library, has been appointed medical librarian University of Wisconsin. The medical profession of Iowa will deeply regret the loss of Miss van Zandt, who has inaugurated many useful forms of service.

Miss Helen McMahon, for eight years medical librarian Creighton University at Omaha, has been appointed to fill Miss van Zandt's place.

This is an important position and of great value to the medical profession. Not long ago a paper appeared in an important medical journal holding that doctors were not sufficiently interested in literature to maintain even a medical library without aid of the lay public and suggested methods of getting the public interested in building up medical libraries which would be of indirect value in promoting a higher degree of professional information among doctors. It was not meant to infer that doctors were ignorant of literature, although it has been held that doctors are less familiar with current medical literature than stock breeders, farmers, lawyers, and others, are of their own literature. A special reason for getting the lay public interested in medical libraries, besides promoting a greater interest in medical literature, was the high price of medical journals and books, which places a limit on the ability to purchase.

If wealthy people who are generally outside the medical profession could become interested in a medical library which would become the center of medical activities an improvement in the general cultural tone of the local medical profession would accrue. In large cities such conditions exist. It would seem that in smaller cities arrangements with local libraries and hospitals for a larger Journal subscription list could be established and maintained by a proper arranged assessment on the local societies. In large cities like Philadelphia the College of Physicians and in smaller cities like the Council Bluffs Clinic. Considerable advancement has been made in this direction by the medical branch of the Iowa State Library. This effort to place within easy reach of the Iowa profession of a large medical literature is now thoroughly appreciated and has been extremely helpful. It is sincerely to be hoped that the Iowa doctors will extend the same helpful aid and support that was accorded Miss van Zandt.

The new Medical Department of our Iowa State Library has evidently solved the problem which has long confronted every state library in the country that has a medical department—that of making its books and periodicals serviceable to every member, and prospective member, of the medical profession in the state. The plan is so simple, the wonder is that it remained for state librarian Brigham to discover and apply it!

At Atlantic City in October of last year, Mr. Brigham read before the National Association of State Libraries a paper entitled "A Medical Library that Really Works", in which he developed his plan and showed by statistics that it was working even better than he had anticipated. At the conclusion of his paper he referred to the possibility that other state libraries had anticipated him in adopting what he facetiously termed "the Iowa idea", and asked the delegates to correct him if he had claimed too much for his medical department. No one responded, but several librarians afterwards expressed a purpose to adopt the plan so outlined.

In brief "the Iowa idea" is simply to apply to the medical department the traveling library system which has been in successful operation in the Iowa Library Commission since 1900.

Instead of being compelled either to buy expensive books and periodicals, or go to Des Moines to consult authorities, the physician, or surgeon, or student, has only to write in for material on any subject, or for a digest of recent books and papers on any subject, and the next

mail will carry the information he seeks, if it is obtainable; and the only expense attending the loan is the postage both ways.

The loans, made by the department in 1922 were 1656—a large increase over those of the previous year. In 1923 they increased to 3,176. In 1924, to 6,308. In 1925, to 7,041. In 1926, to 11,174.

Much credit is due Miss van Zandt for her indefatigable labor in promoting this remarkable increase. Last August, Miss van Zandt resigned her position with our State Library, accepting the more lucrative position as medical librarian for the University of Wisconsin.

The state librarian was fortunate in his selection of Miss van Zandt's successor, Miss Helen McMahon, who entered upon her duties as medical librarian in our State Library in October, had served in a like capacity in Creighton University, Omaha, having had entire charge of the medical department in that institution for the past eight years. Strong letters of commendation from various high sources followed by a personal meeting with the members of the library board, also with local representatives of the State Medical Society, led to the appointment of Miss McMahon.

The "Journal" has every reason to be proud of the record thus far made by the State's Medical Library and to anticipate the department's steadily increasing usefulness to the members of the medical profession.

---

#### DR. VALENTINE MOTT

---

One of the great names in American history is Dr. Valentine Mott of New York City. For more than a generation Dr. Mott occupied first place in surgery. He performed more difficult surgical operations than any other surgeon in America and during his days, and since, no surgeon in this country has reached the high place that Dr. Mott occupied. It is difficult to estimate the relation of surgeons of pre-anesthetic and pre-antiseptic days with surgeons of today. In those days but few were operating surgeons and only men of peculiar qualifications and great operating dexterity could successfully qualify for this branch of practice. When it was necessary to tie down the patient, with strong men to hold him, while the operator was at work under the cries of the suffering patient, it required a firmness and strength of character, combined with rapid and accurate dissection that few men could acquire. It is not said of Mott that he possessed

a "lion heart" or was of harsh nature, or indifferent to suffering; he was only forced to accept conditions as they existed in his day. But no surgeon of his day possessed equal ability and skill, and none were equally successful.

The wonderful skill, dexterity and rapidity of Dr. Mott and his associates are often mentioned in support of the contention that surgeons of a hundred years ago possessed greater operative skill than the surgeon of today. But it must be remembered that surgeons since anesthesia and aseptic conditions have proportionally increased in number, although probably decreased in operative skill, and that the field has vastly widened. While a small group of surgeons in New York reached greater personal distinction than any of today, the surgical profession in New York as a body has reached a higher distinction than ever before through the great institutions with which they are associated.

It is interesting to review Dr. Mott's training and the remarkable group of men with whom he worked in Europe. Dr. Mott was born at Glen Cove (Oyster Bay), Long Island, August 20, 1785, the son of Dr. Henry Mott. In 1804 he became a private pupil of his kinsman, Dr. Valentine Seaman of New York. In 1807 having attended two full courses of lectures at Columbia College—the only school of medicine in New York—he received the degree of doctor of medicine. Soon after receiving his degree he went to London and entered Guy's Hospital, as a pupil of Sir Astley Cooper, one of the ablest surgeons, where he remained about two years. Besides Sir Astley Cooper there were in London, Cline, Abernethy and Charles Bell—once in my earlier practice I had as a patient one who had been operated on by Abernethy, and a feeling of hero worship came over me not unlike that of another patient who had fought under Wellington at Waterloo.

Dr. Mott went from London to Edinburg, where Gregory, Monro, Duncan, Home, Hope and Thompson taught. There was also John Bell, an older brother of Charles Bell of London. After leaving Edinburg Mott returned to London and resumed attendance on lectures at St. Thomas' and Guy's Hospital. After two and one-half years in London and Edinburg, Dr. Mott returned to New York in 1809, where he had as colleagues Wright, Post, Hasack, Mitchell and others. He at once gained an extensive practice and for many years was identified with medical school enterprises. Operations in surgery were quite different in 1816 when Valentine Mott successfully amputated at the hip joint and in 1818 when he ligated the innominate artery at a



point two inches from the heart, for aneurism of the subclavian artery, and the patient lived twenty-six days.

It is only in reviewing the operations of America's greatest surgeons of a hundred years ago that we can realize how the field of surgery has grown. Then amputations, operations on great arteries and cutting for stone, were the great fields for surgical undertakings. Dr. Mott ligated the carotid forty-six times; the subclavian seven times, all successfully; the iliac seven times, four successfully, and the femoral fifty-two times.

We have enumerated only a list of Dr. Mott's most difficult operations, there were many other operations which even today would be regarded as surgical victories. These operations were performed without anesthetics and without the benefit of aseptic methods.

Mott's great operations were on the large arteries and for stone. He was esteemed as the greatest lithotomist of his day and of 165 operations, he lost but eight cases. He also amputated nearly 1,000 limbs. As above stated, he was credited with the first successful hip joint amputation. In 1821 he excised the entire clavicle for osteosarcoma, an operation original with him.

It is not necessary to enumerate other important operative undertakings of Dr. Valentine Mott to show the extraordinary surgical skill of this man.

Soon after returning to New York Dr. Mott became identified with medical schools and was connected with one or another until he resigned in 1835, on account of ill health, as professor of operative surgery in the College of Physicians and Surgeons. Dr. Mott died in 1865 at the age of eighty years.

If we were to compare a list of operations by Dr. Mott with a list of operations by any one of a number of leading New York surgeons of today, what a difference would appear.

---

#### NEW HAMPSHIRE ADOPTS THE BOSTON MEDICAL AND SURGICAL JOURNAL

---

In New England the Boston Medical and Surgical Journal, which has reached its 197th volume, has been its great medical organ. Its financial condition has always been precarious, notwithstanding the long list of eminent Boston physicians who have been on the editorial staff. It is almost strange that this great medical magazine should so often be in financial straits. Could it be that the medical profession felt but little interest in its own literature?

The Journal had been published as a private enterprise until taken over by the Massachusetts State Medical Society a few years ago, with Dr. Walter P. Walker as editor. After the organization of the state medical journals, Rhode Island, Maine and Vermont organized their own state journals. Vermont, after two trials, gave up their journal, while Rhode Island and Maine have continued on. New Hampshire and Connecticut never tried to establish journals.

We have on several occasions, without invitation, suggested that the New England states join in adopting the Boston Medical and Surgical Journal as the New England official journal, but the name has stood in the way. It was not easy for Boston to give up a journal name almost 200 years old, and the other states did not feel that Boston was all of New England.

Now New Hampshire has joined, and we are informed by the editor that, "In this issue (October 6) we begin the publications of the transactions of the New Hampshire State Medical Society. This material will appear in installments and a copy of the Journal containing these records will be sent to every member of the New Hampshire Society".

We hope to see in the near future all the other New England states arrived at some agreement whereby this important journal will give the profession much material which is now buried in the secretary's office.

---

#### NOTICE

---

During the centennial year the Iowa State Medical Society appointed a committee to prepare a history of medicine in Iowa. Data was at once collected from practitioners of medicine who knew personally the early doctors who came to the state. This material, added to public records, histories and publications of the State Historical Society, has made it possible to secure a large amount of material, which, with many photographs, makes an interesting and attractive volume, at the very moderate price of \$5.

Subscriptions may be sent to Dr. R. R. Simons of Des Moines or D. S. Fairchild, Clinton, Iowa.

---

#### THE PONDVILLE CANCER HOSPITAL (Norfolk, Massachusetts)

---

This hospital was created under authority of the legislature of Massachusetts for the care of patients suffering from cancer, under the administration of the state department of public health and is one of the first institutions of this kind in this country.

### NOTICE OF EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE

---

Examinations of candidates for commission as assistant surgeon in the regular corps of the U. S. Public Health Service will be held at the following named places on the dates specified: At Washington, D. C., February 6, 1928; at Chicago, Illinois, February 6, 1928; at New Orleans, Louisiana, February 6, 1928; at San Francisco, California, February 6, 1928.

Candidates must be twenty-three years and not over thirty-two years of age. They must have been graduated in medicine at a reputable medical college, and have had one year's hospital experience or two years' professional practice. They must satisfactorily pass oral, written and clinical tests before a board of medical officers, and undergo a thorough physical examination.

Successful candidates will be recommended for appointment by the president, with the advice and consent of the senate.

Requests for information or permission to take this examination should be addressed to the surgeon general, U. S. Public Health Service, Washington, D. C.

H. S. Cumming,  
Surgeon General.

---

### ETHICS OF MEDICAL NEWSPAPER WRITING

---

Dr. Charles A. L. Reed was president of the American Medical Association at the time of its reorganization. He, later, was on the committee that formulated its "Principles of Ethics". He is now devoting himself exclusively to literary work, his last book, "The First Estate", just from the Stratford press, being a novel with a scientific motif. But, in addition to writing books, he writes an article on health and success every day for the King Features Syndicate, New York, which, in turn, furnishes the series for simultaneous publication in many newspapers of the United States, Canada, and foreign countries. Dr. Reed's views on the ethics involved in his newspaper work are, therefore, of interest. In a recent interview he said:

"No, I have not 'retired'. I am now practicing 'educational medicine'. I am 'carrying the message to the masses', as it were. It is true my articles are having a phenomenal run. This, in large part, is due to the influence of the medical profession. You see, I had long wanted to do just what I am now doing. The opportunity came to me unexpectedly. I saw, however, that newspaper writing could not be ethically combined with a fee-earning practice. Each was entirely ethical within itself but the two wouldn't mix. The combination spelled 'advertising' with the worst form of unfair competition. My

practice at the time was distinctly national. But, without hesitation, I announced to the entire medical profession that I would accept no more patients—and I haven't. Now, in spite of the fact that I have never published my home address in my articles—another fine ethical point—I do receive through my many newspaper offices literally hundreds of letters asking for treatment. In no single instance have I ever given it. The experience, however, shows what I mean by 'unfair competition'. On the other hand I have used my articles, now numbering well on to two thousand, to create a higher appreciation of the medical profession by the general public—a better understanding between the two. This is a thing that I have been and am doing much more effectively, so far as publicity methods are concerned, than the profession in any locality can do in its own behalf. It is doubtless in recognition of this fact that, as I know to have been true in many instances, my professional colleagues have asked editors to put on my feature and have thus helped to extend my circulation and influence."

---

### A PROPER RECOGNITION OF SERVICE

---

The Walter Reed Memorial Commission has authorized the various sections of the state to raise \$2,500 for the restoration of Belroi, the birthplace of Major Walter Reed in Gloucester county, Virginia. The Medical Society at its last annual meeting appropriated funds to purchase Belroi, to be presented to the commission and the deed has now been properly transferred.

---

### SUPPLY OF PHYSICIANS IN NEBRASKA

---

The editor of the Nebraska State Medical Journal has made a careful survey of the distribution of physicians in that state and arrives at the conclusion, "that the supply of physicians in Nebraska has not reached an acute stage in the state, and few will believe that any real scarcity is impending".

Editor Long felt that Nebraska possessed some advantages in a study of the question of supply in small towns. Nebraska has but two cities of above 14,000 population and a total of twenty-six towns of above 2,000 population. The state is chiefly agricultural and a practice outside of a small number of towns is a country practice, among a fairly prosperous farmer population, which afford a reasonable financial return. It is admitted that some communities which formerly had one or more doctors, are now without local medical service. Part of this is no doubt due to the development of the country, and as Dr. Long states, the disappearance of certain infectious diseases has greatly lessened the need of physicians. Again, the good roads and automobiles has remedied this apparent disadvantage.

Referring to figures in ten years, 174 physicians located in 132 of the smaller towns. The location



of a physician is not different in practice than the location of any other business. The question of investment and the probable returns must of necessity influence every reasonable man.

## SOCIETY PROCEEDINGS

### Decatur County Medical Society

The Decatur County Medical Society held a meeting at the assembly room of the Leon library recently, about thirty members of the medical profession from Decatur and adjoining counties were in attendance.

Dr. A. A. Johnson of Council Bluffs delivered a lecture on Goiter, followed by a lunch at the Manning Cafe.

### Linn County Medical Society

The annual meeting and dinner of the Linn County Medical Society, was held Thursday, October 20, 1927, at the new Roosevelt Hotel, Cedar Rapids, at 8 o'clock.

John Lincoln Porter, M.D., Evanston, Illinois, presented The Use of Traction in Painful Diseases of the Joints.

Buffet luncheon.

Hosts: Drs. Pfeiffer, Krause and Houser.

### Tama County Medical Society

The Tama County Medical Society held its fall meeting in Chelsea, Friday evening, October 21, 1927. A four course dinner was served by the Methodist ladies, under the direction of Mrs. Duncan, wife of school superintendent, in the high school building, where the evening meeting was held.

The paper of the evening was by Dr. Starr of Mason City, under the title, Some Endocrines in Dystrophies.

The next meeting will be held in Toledo in November, when new officers will be nominated.

A. A. Crabbe, Sec'y.

### Southwestern Iowa Medical Society

The fifty-second annual session of the Southwestern Iowa Medical Society was held in Burlington at the Burlington Hotel, October 20, 1927.

The program consisted of the following papers and talks:

Brain Tumor, by Dr. R. S. Reimers, of Burlington.

Illustrated Talks, by O. H. Plant, of Iowa City.

An illustrated lecture, by Dr. George Steinle, of Burlington.

A paper on Pyelitis, by Dr. M. Bannister, of Ottumwa.

A paper on Upper Respiratory Infections in Infants and Young Children, by Dr. D. M. Lierle, of Iowa City.

There were about seventy physicians in attendance.

At 6:30 the annual society dinner was served.

Officers elected were: Dr. R. L. Feightner, president, Fort Madison; Dr. Carl Armentrout, vice-president, Keokuk; Dr. W. H. Johnson, secretary-treasurer, Muscatine.

### Botna Valley Medical Society

The program of the Botna Valley Medical Society held at Atlantic, Iowa, Friday, November 4, 1927, was as follows:

The Use and Value of Proctoclysis in Medical Patients—Dr. A. L. Nielsen, Harlan, Iowa.

Thyroid Disease—Dr. A. A. Johnson, Council Bluffs, Iowa.

Nasal Accessory Sinus Disease—Dr. L. G. Howard, Council Bluffs, Iowa.

The Treatment of the Complications of Diabetes with Particular Reference to Coma and Gangrene—Dr. Frank Conlin, Omaha, Nebraska.

Officers—President, Dr. Donald Macrae, Jr., Council Bluffs; secretary, Dr. R. L. Barnett, Atlantic.

## MEDICAL SOCIETY OF THE MISSOURI VALLEY

At the fortieth annual meeting of the Medical Society of the Missouri Valley, which was held in Des Moines, September 14, 15 and 16, under the presidency of Thomas G. Orr, a reorganization program was voted through. The new president will be Dr. Fred Smith, University of Iowa, Iowa City, and the new secretary, Dr. Earl C. Sage, 1520 Medical Arts building, Omaha, Nebraska. The next annual session will be held in Omaha some time in November, 1928. Dr. Ralph H. Major, professor and head of the department of internal medicine of the University of Kansas was made president-elect.

In view of the resignation of Dr. Charles Wood Fassett, who has been in ill health for the past year, and who has been the guiding spirit of this society for many years, it was decided that the official journal, namely, the "Medical Herald and Physiotherapist" will be discontinued. An account of the proceedings at Des Moines will appear in the Nebraska State Medical Journal. The society will not have an official organ for the present.

First to continue the movement that has been promulgated to rejuvenate this worthy society, a new constitution and by-laws were adopted, which states the purpose of the society as follows: "The objectives of this society shall be primarily educational. The society shall give opportunity to the faculties of the universities of the district and to members of the association and to invited guests, to present such work as will tend to place the practice of medicine in the district on a higher scientific plane."

It has been the opinion of some of those interested that a society with the above objectives could be made an educational force of great value. The enlisting of the universities of the district should be

of great benefit to all of us, and should insure good programs and enlightened management. It should give the practitioners an opportunity to meet and know the men who influence to a great degree medical education and medical progress in the region. This contact should be advantageous to both practitioner and teacher.

It is hoped that this society will receive sufficient support to enable it to build satisfactory programs. The financial support of the profession is necessary to this end. The annual dues are \$2. Your check by return mail will certainly be appreciated by the new secretary, who must have funds to enable him to carry on.

The society should in the next few years, reach a membership limited to a number sufficient to give the necessary financial support and not so large as to become unwieldy. When the attendance exceeds a certain optimum the value of the society to the members decreases rapidly with the increase in its size.

Sincerely yours,

Earl C. Sage, M.D.,  
Secretary-Treasurer.

---

#### CONFERENCE OF STATE OFFICERS AND COUNTY SECRETARIES

---

The second annual conference of officers and secretaries of constituent county societies of the Iowa State Medical Society, will be held at the Hotel Fort Des Moines, on Thursday, January 12, 1928. The program, as tentatively arranged, savors much of many good things which should be of interest to those present. The Board of Trustees will be represented by Dr. Vernon L. Treynor of Council Bluffs; the Council will be represented by Dr. Samuel T. Gray of Albia and the Secretaries will be represented by Dr. Corwin C. Cornell of Knoxville and Dr. Mark C. Jones of Boone. Matters of importance will be touched upon by members of the Committee on Public Policy and Legislation, of which Dr. Thos. A. Burcham of Des Moines is chairman.

The conference will be especially favored by having with it an officer of the American Medical Association in the person of Olin West, secretary and general manager. It is hoped that every officer of the State Society and every secretary of the Constituent County Societies will plan to arrange their work so as to be present in Des Moines at this coming conference and to meet and know Dr. West personally.

A complete program will be mailed shortly to each officer and secretary. For any further particulars regarding the conference, address the secretary at his office, 902 Bankers Trust building, Des Moines.

Tom B. Throckmorton,  
Secretary.

#### PERSONAL MENTION

---

Dr. Ira A. Marble has moved from Blairstown to Parkersburg, where he will engage in the practice of medicine. Dr. Marble is a graduate of the Iowa State University School of Medicine.

Acting assistant surgeon A. V. Hardy, directed to proceed from Iowa City, Iowa, to such places in the State of Iowa as may be necessary, and return, during the remainder of the fiscal year, in connection with the epidemiological study of Malta fever.

The medical profession of Iowa will be pleased to learn that Dr. C. E. Ruth is back in his office after his long illness of the past year. About a year ago Dr. Ruth was forced to give up practice due to poor health. He spent much of his time during the early months of his illness in hospitals in New York, later taking an extended vacation in the lake region of Michigan. Since his return to Des Moines he has reopened his office and resumed his former practice of surgery.

---

#### OBITUARY

---

Dr. Louis Greenlee Patty died at his home in Carroll, August 15, 1927, from a stroke of paralysis. Acute dilation of the heart followed the stroke. He had been in poor health for more than a year.

Dr. L. G. Patty was born at Irving, Tama county, Iowa, June 30, 1864. He was the son of Dr. Joseph M. and Rachel Jane Greenlee Patty. When four years old he came to Carroll with his parents. His father was the first physician to locate in Carroll. After completing his course in the Carroll schools, L. G. Patty entered the veterinary department of the Iowa State College at Ames and graduated in 1887.

The writer at that time was connected with the school as an instructor and became interested in Dr. Patty and followed his work up to the time of his death. After practicing veterinary medicine for several years, he entered the Jefferson Medical School at Philadelphia and graduated in 1893. He practiced first at Tama for five years and in 1898 moved to Carroll, where he practiced until shortly before his death.

Dr. Patty was deeply interested in his profession and on several occasions took post graduate work in leading medical universities, both in this country and Europe. He never failed to attend important medical societies and associations. In 1921 he was elected a Fellow of the American College of Surgeons, at a Philadelphia session. He was a member of the Carroll County Medical Society, the State Medical Society, and a Fellow of the American Medical Association.

Dr. Patty was not only a safe and conscientious practitioner of medicine, but more than all, a man of high ideals and of upright character. He was interested in his city and social affairs and his death is a serious loss to the community in which he lived.



November 5, 1895, he married Miss Josephine Coffey of Coon Rapids, who, with one daughter, Maude Josephine Patty, survive him.

---

Dr. William Frank Graham, a well known physician in Atlantic, died at the Atlantic Hospital following an operation for carcinoma of the splenic flexure of the colon, August 8, 1927.

Dr. Graham was a graduate of Rush Medical College, Chicago, 1880, and was at the time of his death seventy-two years of age. He was a member of the Atlantic Hospital staff.

---

Dr. G. W. Dosh died at his home in Brighton, October 9, 1927.

Dr. Dosh was born at Albany, New York, in 1853. In 1872 he graduated from Grinnell College and in 1876 in medicine from Rush Medical College, Chicago. In 1883 Dr. Dosh graduated from the Des Moines School of Pharmacy and opened a drug store in Lucas, Iowa. Five years later he moved to Brighton, where he opened a drug store and practiced medicine. He resided in Brighton thirty-seven years. In 1882 he married Miss Mary Wineman of Malcolm, Iowa.

---

Dr. Charles H. Tidd died at his home in Marshalltown after a long illness from paralysis.

Dr. Tidd was born at Collville, Ohio, on October 28, 1847, and grew to manhood there. He attended the academy at Marietta, Ohio, for two years, and following this was engaged in commercial pursuit for a couple of years at Brooklyn, Michigan and Brighton, Illinois, and later took a medical course at the Ohio Medical College at Cincinnati.

Dr. Tidd came to Franklin county, Iowa, in 1875 and located at Geneva. For many years he acted as assistant chief surgeon for the old Iowa Central Railway Co., while at the same time retaining his home practice at Geneva. He gave up his practice at Geneva in 1910 and moved to Marshalltown.

On September 23, 1870, he married Miss H. F. Huff of Middlefort, Ohio, who survives him.

---

Dr. Elias H. Barg was born in Jerusalem, Palestine, while the family were there on a visit, December 23, 1878, and died in the Methodist Hospital, Des Moines, October 29, 1927, at the age of near forty-nine years.

Dr. Barg was educated in the schools of Germany and graduated from the University of Berlin. Later he went to Paris for a year of study in the Pasteur Institute, and still later at Munich for post-graduate work. Dr. Barg acquired a sufficient knowledge of the English language to enable him to come to the United States and pass his medical examination. He first settled in Joe Town, West Virginia, where he remained three years. Again in Cameron, West Virginia, for three years and for some years in St. Louis, and later came to Montezuma.

Dr. Barg married Miss Bertha Hainebach in London, October 13, 1908. Two sons were born; one is in the State Teachers College at Cedar Falls and one is at home.

Dr. Barg was a member of the Poweshiek County Medical Society.

---

Dr. Joseph Hollowbush of Rock Island, Illinois, died at his home at 11:30 p. m., October 26, 1927, at the age of sixty-seven years.

Dr. Hollowbush was born at Quincy, Illinois, October 26, 1859. Graduated from the Missouri Medical College, St. Louis, in 1881. Began practice in Rock Island in 1893.

Dr. Hollowbush was active in medical organization and in medical society work, and was particularly well known in Iowa. For twenty-five years he was surgeon for the Chicago, Milwaukee & St. Paul Railway. An active member of his local and state medical societies and a Fellow of the American Medical Association and of the Western Surgical Association. He was an early member of the American College of Surgeons. He was a member of the American Association of Railway Surgeons and at one time its president.

Dr. Hollowbush was particularly noted for genial and social qualities and will be missed by a wide circle of friends.

---

Dr. Benjamin F. Lonsbury, 734 Fair Oaks ave., Oak Park, Illinois, was killed in an automobile accident October 21, 1927.

Dr. Lonsbury was chief surgeon of Chicago, Milwaukee & St. Paul Railway on eastern lines and has been so since the time of Pacific extension. Dr. Lonsbury was formerly assistant chief surgeon; when Dr. Bouffleur was made chief surgeon of the Pacific extension Dr. Lonsbury was given the eastern lines.

Dr. Lonsbury was well known to the profession of Iowa and on account of the extended lines of the Chicago, Milwaukee & St. Paul Railway, he was very familiar with the Iowa profession. Among his good friends in Iowa was Dr. Munger of Spencer. Mrs. Lonsbury was born in Mt. Vernon.

---

#### CORRECTIONS ON PAPER IN NOVEMBER JOURNAL BY DR. MERRILL M. MYERS

The following changes are made in the paper, "The Symptoms of Heart Disease", by Merrill M. Myers, Des Moines, which appeared in the November number of this Journal.

Page 390, second column, last line, should read 50.91, and the change to this figure should also be made in Table II.

In Table I, total females with heart disease should be 248, males 285. Per cents in heart disease group should be, Tenderness 1.5; No breathing difficulty 35.6; Weakness 38.2; and Hemoptysis 1.5. Under

Per cents all patients, the figure for Radiation should be 6.7.

In Table III, in the column, All patients, the per cent with Radiation should be 6.7.

In Table V, in the column, Heart disease, the per cent with No breathlessness, should be 35.6, with Weakness 38.2.

## BOOK REVIEWS

### BRONCHOSCOPY AND ESOPHAGOSCOPY (Second Edition, Reset)

By Chevalier Jackson, M.D., Professor of Bronchoscopy and Esophagoscopy, Jefferson Medical College; Professor of Bronchoscopy and Esophagoscopy, Graduate School of Medicine, University of Pennsylvania. Second Edition, Reset. Octavo of 457 Pages with 179 Illustrations and 10 Color Plates. Philadelphia and London: W. B. Saunders Company, 1927. Cloth, \$8.00 Net.

The first edition of this work appeared in 1922. Needless to say that in the five years which have elapsed since the appearance of this first edition, there have been many advances in our knowledge of bronchoscopy, and these exceptionally rapid advances are shown in this last edition. It contains much new material, and is more elaborately illustrated, by the addition of sixty-five new pictures and six new colored plates. The book is re-written and enlarged by one hundred and ten pages. It is truly a wonderful book and is the only one of its kind printed in English. It is written by a prominent authority, a pioneer in the American field of peroral endoscopy. It presents in concise form a practical working text-book on endoscopy and laryngeal surgery.

This book is divided into thirty-nine chapters, which take up the Instrumentarium, Anatomy, Preparation of Patient, Anesthesia, Bronchoscopic Oxygen Insufflation, Position of Patient, Introduction of Laryngoscope, Bronchoscope and Esophagoscope, Acquiring Skill, Foreign Bodies in the Air and Food Passages, Their Location, Removal and Mechanical Problems connected therewith, unsuccessful Bronchoscopy and Esophagoscopy, four chapters on Benign Growths, three chapters on Malignant Disease, seven chapters on the various diseases, Gastroscopy, Acute Stenosis, Tracheotomy, Chronic Stenosis, and Decannulation after cure. These chapters are followed by a bibliography and an index.

Doctor Jackson's teaching is specific, and to the point, in as much detail as is necessary, but with no unnecessary words. The illustrations are reproductions of the author's own drawings: while the beautiful series of colored illustrations constitute a unique and valuable feature. They present the results of experience gained in thousands of cases. By the author's untiring efforts he has taught the internist and general practitioner that a foreign

body in the lung has come to be recognized as the first diagnostic possibility to be considered in every acute and chronic case. "Jackson" is recommended highly, and should be read and re-read by every one doing nose and throat work, by the internist and general surgeon.

Weih.

### OBSTETRICS FOR NURSES

By Joseph B. De Lee, M.D., Professor of Obstetrics at the Northwestern University Medical School; Obstetrician to the Chicago Lying-in Hospital and Dispensary. New (8th) Edition, Revised, 12 Mo. of 635 Pages, with 266 Illustrations. W. B. Saunders Company, 1927. Cloth \$3.00 Net.

While there is a growing tendency for confinements to occur at a hospital, Doctor De Lee asserts that more than one-half of the babies are born in private homes. It is immaterial so far as this book is concerned, where the babies are born, a skillful nurse is needed, and skill must be secured by study and practical work. Doctor De Lee's vast experience has pointed out the way to prepare a nurse and he has written this book in view of her needs. The appearance of an eighth edition does not mean a material change in the text, only such changes and omissions as seems warranted by observation in teaching. This presentation expresses the best in this line of work.

### THE MEDICAL CLINICS OF NORTH AMERICA

Volume X, Number 6, Octavo of 211 Pages, with 101 Illustrations and Complete Index to Volume X. Price Per Clinic Year, July, 1926 to May, 1927, Paper, \$12.00; Cloth, \$16.00 Net. W. B. Saunders Company.

This is a number of unusual interest in that it is devoted to the heart. The introduction is written by Dr. David Riesman of Philadelphia, in which he sets forth the purpose of a group of physicians in Philadelphia to present a series of studies on the heart. In looking over the list of names who hold this Seminars, members Philadelphia County Medical Society, we find men distinguished in cardiology. Dr. Riesman says, "In planning the Cardiology Seminars the committee has had two main objects in view. First, to restate in terms of practical experience the facts concerning the circulation that every medical man—physician, surgeon and specialist—should know. Second, to lay before you the most recent discoveries in physiology, anatomy and technic."

This announcement indicates what may be expected from this clinic number. As a fulfillment of this assurance we will indicate some of the subjects presented.

The Clinical Value of the Electrocardiograph, by Dr. Wm. D. Stroud. The Bundle of His and Its Relation to Diseases of the Heart, by John Eiman. How to Tell the Cardiac Arrhythmias at the Bed-side, James E. Talley. The Value of the Palygraph



in Cardiac Diagnosis, Thomas M. McMillian. Acute Endocarditis, George W. Norris. Angina Pectoris, James N. Anders. The Circulation in Relation to Surgery, Thomas McCrae. Value of an X-Ray Examination in the Interpretation of Heart Lesions, Eugene P. Pendergrass.

There are several other papers of equal importance, but this enumeration will be sufficient.

### MODERN MEDICINE, ITS THEORY AND PRACTICE

In original contributions by American and Foreign Authors. Edited by Sir William Osler, Bart. M.D., F.R.S. Third Edition, Thoroughly Revised. Re-Edited by Thomas McCrae, M.D., Professor of Medicine of the Jefferson Medical College, Philadelphia; Fellow of the Royal College of Physicians, London; Formerly Associate Professor of Medicine of Johns Hopkins University. Assisted by Elmer H. Funk, M.D., Assistant Professor of Medicine Jefferson Medical College, Philadelphia. Volume IV, Diseases of the Respiratory System. Diseases of the Circulatory System. Illustrated. Lea & Febiger. Price, \$9.00.

This great work originally edited by Sir William Osler and now reedited by Dr. Thomas McCrae, Sir William's former associate, brings again to the profession the work in revised form. Volume IV is divided into two parts. Part one, Diseases of the Respiratory Tract, consisting of eleven chapters, and part two, Diseases of the Circulatory System, of fourteen chapters. The names of the men associated with this revision are well known as among the most noted university teachers.

We note that the chapters on Diseases of the Arteries, and the chapter on Aneurism, originally prepared by Osler, were revised by Dr. Campbell P. Howard of Montreal.

### DISEASES OF THE DIGESTIVE ORGANS WITH SPECIAL REFERENCE TO THEIR DIAGNOSIS AND TREATMENT

Charles A. Aaron, Sc.D., M.D., F.A.C.P., Professor of Gastroenterology and Dietetics in the Detroit College of Medicine and Surgery; Professor of Gastroenterology in the Detroit Post-graduate School of Medicine, Etc.; Fourth Edition. Thoroughly Revised. Illustrated with 174 Engravings, 70 Roentgenograms and 13 Colored Plates. Lea and Febiger, 1927.

This valuable work again appears in a new edition. It is difficult to fully appreciate the value of the work that has been accomplished in the past few years in the study of the physiology of the digestive organs and the diseases of the digestive tract. As the author states "no subject has profited more by

the modern spirit of research than the diagnosis and treatment of diseases of the digestive organs". For many years our knowledge of the physiology of digestion did not extend much beyond the observations of Dr. Beaumont and some chemical studies. But the stomach and duodenal tubes and the qualitative and quantitative analysis has revealed most important and relatively accurate knowledge of gastric and duodenal functions.

These facts are now accepted and it falls to the author to present the painfully acquired scientific knowledge to the practitioner for his daily use in diagnosis and treatment. Dr. Aaron in the first chapter considers the physiology of digestion and the examination of gastric and duodenal contents. These observations are fundamental and the author goes on to the consideration of the diseases of the digestive organs based on the relatively accurate studies of organs that can now be studied objectively and chemically. The 917 pages of this book leave nothing overlooked. It is recognized that when the diagnosis is correctly accomplished the general plan of treatment is reached. The question of gall-bladder disease, gall-stones, cancer and syphilis are included as a part of the diseases of digestive organs. The practitioner will find a convenient place for this book for ready reference in questions of diagnosis and treatment.

### OVERCOMING TUBERCULOSIS, AN ALMANAC OF RECOVERY

By Gerald B. Webb, M.D. and Charles T. Ryder, M.D. of Colorado. Paul B. Hoeber, Inc., New York. Price, \$2.00.

The authors in this book are associated in research work in tuberculosis at the Cragmore and Glockner Sanatoria, Colorado Springs, and have unlimited opportunities to observe and study tuberculosis cases. The book is largely written for the instruction and guidance of patients suffering from this disease.

The first chapter is devoted to the question of temperature and pulse rate as a guide in determining rest in bed. If the record shows a temperature above 98.8 and a pulse rate of much over 80 after 15 minutes rest, the danger point is reached and rest in bed is the essential treatment. A record taken at various times and conditions will reveal the progress of the case. The author notes that when the progress is favorable, getting up involves a risk and should be undertaken with great caution.

The Hygiene of Recovery, involves the question of Diet, Fresh Air, the Protection of Clothing and Environment, Keeping Warm, Cleanliness, Cough and Expectoration, Amusements, Regular Habits, Sanatoria and Climate.

Under chapter four: Accidents and Obstacles, are included Conditions, that are the effects of the disease itself. Digestive Difficulties, Loss of Appetite, Nervousness, Sleeplessness, Headache, Sweating,

(Continued on advertising page xx)

## Honest COLLECTION Service

Our contract speaks for itself. It states a definite commission rate. It specifies a definite time at expiration of which the accounts revert to you if desired. There are no fees in advance. No chance for misunderstanding. We have a trained staff of adequate size to give real and careful attention to your collections.

Write today for sample contract and fac-simile letters from our clients.



### We Have Collected for Doctors

such sums as the following: Over \$14,000.00 for one Surgeon in Indiana, \$7,205.07 for one Clinic in Texas, \$5,703.32 for a Minnesota Clinic, \$3,449.50 for an Indiana Clinic, \$3,654.10 for a partnership of Doctors in Wisconsin and \$694.65 in two months for a general practitioner in Nebraska, and THEIR PATIENTS HAVE REMAINED THEIR FRIENDS.

### Books Audited and Accounts Listed Without Charge

Our Auditor, Thos. M. Woodruff, 349 West 7th St., College View, Nebr., will audit your books and list your accounts for Association handling without charge.

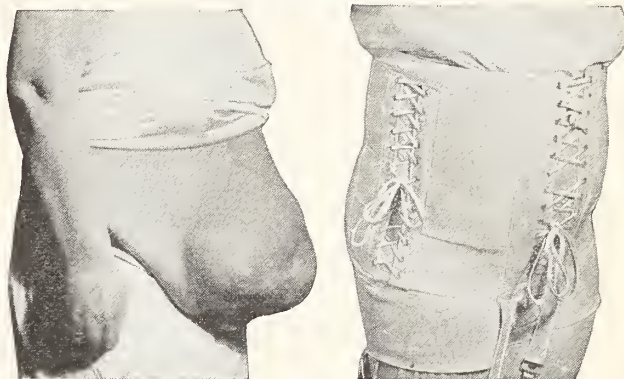
### Physicians & Surgeons Adjusting Assn.

(Publishers Adjusting Ass'n, Inc., Est. 1902, Owner)

RAILWAY EXCHANGE BUILDING

KANSAS CITY, MO.

## BOLEN ABDOMINAL SUPPORTERS and BINDERS Elastic Hosiery, Laced Linen Mesh Stockings, etc. (PATENTED)



Special supporter made and in use by patient with large ventral hernia

Supporters for every purpose, Enteroptosis, Nephroptosis, Obesity, Post-Operative, Hernia, Pregnancy, Sacro-Iliac, etc.

### Special Attention Given to High Operations

Everything made to your order and orders filled within 48 hours after reaching our Omaha branch and 72 hours after reaching Chicago office.

*Write for descriptive literature*

### Bolen Manufacturing Company

Chicago Office  
1006 Marshall Field  
Annex

Home Office  
1712 Dodge Street  
Omaha, Nebraska

## Trade-Mark Registered **STORM** Trade-Mark Registered Binder and Abdominal Supporter (PATENTED)



### For Men, Women and Children

For Ptosis, Hernia, Pregnancy, Obesity, Relaxed Sacro-Iliac Articulations, Floating Kidney, High and Low Operations, etc.

Ask for 36-page Illustrated Folder  
Mail orders filled at Philadelphia only—  
within 24 hours

### Katherine L. Storm, M. D.

*Originator, Patentee, Owner and Maker*

1701 DIAMOND ST.

PHILADELPHIA

## Radium Service

BY

### THE PHYSICIANS RADIUM ASSOCIATION of CHICAGO, Inc.

Incorporated under the laws of Illinois, not for profit, but for the purpose of making radium available to Physicians to be used in the treatment of their patients. Radium loaned to Physicians at moderate rental fees, or patients may be referred to us for treatment if preferred.

*Careful consideration will be given in-  
quiries concerning cases in which  
the use of Radium is indicated.*

### THE PHYSICIANS RADIUM ASSOCIATION

Room 1307

55 East Washington St., Pittsfield Bldg.

CHICAGO, ILL.

Telephones:

CENTRAL 2268-2269

Managing Director:

WM. L. BROWN, M.D.

#### BOARD OF DIRECTORS

William L. Baum, M.D.

Wm. L. Brown, M.D.

Frederick Menge, M.D.

Walter S. Barnes, M.D.

Louis E. Schmidt, M.D.



## BOOK REVIEWS

(Continued from Page 460)

Hemorrhage, Colds and Sore Throat. These are all serious considerations and demand attention.

The remainder of the book contains chart sheets which may be utilized in maintaining a record of progress. It is altogether a useful book that may be placed in the hands of a tuberculosis patient who is making a struggle for his life.

## PHYSICIANS OF THE MAYO CLINIC AND MAYO FOUNDATION

A Series of 635 Biographical Sketches with 611 Portraits and Including Complete and Accurate Data Concerning the Professional Life of Each Physician Prior to January 1, 1926. Octavo Volume of 538 Pages. W. B. Saunders Company, 1927. Cloth \$7.00.

During the past few months, data has been published concerning the Mayo Clinic and Mayo Foundation which will furnish the medical profession with full and accurate information concerning the history and development of this institution for medical education. We have added a short biographical sketch of the men who have been engaged in this work. It brings us into closer relation with any great undertaking if we know intimately the character of those identified. It is the custom when men are appointed to positions of trust to furnish the public with an outline of their training, their experience and their fitness for the service undertaken. The Mayo Foundation is not a private affair, but has become a public institution and as such it is but fair and proper that the medical public should know something of the men who are contributing to the common knowledge of medicine and surgery.

## NEW AND NON-OFFICIAL REMEDIES

Chicago, Illinois, September 26, 1927.

In addition to the articles enumerated in our letter of August 27th, the following have been accepted:

E. Bilhuber, Inc.:

Bromural.

Parke, Davis &amp; Co.:

Diphtheria Toxin-Antitoxin, O. 1 L+P. D. &amp; Co.

Swan-Myers Co.:

Capsules Ephedrine Hydrochloride—Swan-Myers, 0.05 Gm.

Chicago, Illinois, October 29, 1927.

In addition to the articles enumerated in our letter of September 26th, the following have been accepted:

Gilliland Laboratories, Inc.:

Typhoid Vaccine, 30 Ampule package.

DePree Company:

Sulpharsphenamine—DePree.

Sulpharsphenamine—DePree, 0.1 Gm. Ampules.

Sulpharsphenamine—DePree, 0.15 Gm. Ampules.

Sulpharsphenamine—DePree, 0.2 Gm. Ampules.

Sulpharsphenamine—DePree, 0.3 Gm. Ampules.

Sulpharsphenamine—DePree, 0.4 Gm. Ampules.

Sulpharsphenamine—DePree, 0.45 Gm. Ampules.

Sulpharsphenamine—DePree, 0.6 Gm. Ampules.

Sulpharsphenamine—DePree, 1.0 Gm. Ampules.

Sulpharsphenamine—DePree, 3.0 Gm. Ampules.

Eli Lilly &amp; Co.:

Ephedrine—Lilly.

Inhalant Ephedrine Compound—Lilly.

Parke, Davis &amp; Co.:

Erysipelas Streptococcus Antitoxin (Refined and Concentrated)—P. D. &amp; Co.

E. R. Squibb &amp; Sons:

Scarlet Fever Streptococcus Toxin—Squibb, 5 vial package (500, 2,000, 8,000, 25,000, 60,000 skin test doses).

Scarlet Fever Streptococcus Toxin—Squibb, 50 vial package (500, 2,000, 8,000, 25,000, 60,000 skin test doses).

Winthrop Chemical Co.:

Mesurol.

Emulsion Mesurol, 20 per cent.

Nonproprietary Articles:

Ephedrine (base).

## As a General Antiseptic

in place of

TINCTURE OF IODINE

Try

## Mercurochrome-220 Soluble

(Dibrom-oxymercuri-fluorescein)

2% SOLUTION

It stains, it penetrates, and it furnishes a deposit of the germicidal agent in the desired field.

It does not burn, irritate or injure tissue in any way.

**HYNSON, WESTCOTT & DUNNING**  
BALTIMORE











DATE DUE SLIP

UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL LIBRARY

THIS BOOK IS DUE ON THE LAST DATE  
STAMPED BELOW

FEB 20 1929

OCT 3 1931

MAY 5 1932

2

1m-9,'26

57.

v.17 Iowa state medical soci-  
1927 ety.

Journal. 20469

*L. Rypins* FEB 2 1929 MAR 23 1929

*Rundgren* APR 5 1929 SEP 17 1929

*albert S. Persson* OCT 3 1931

*W. Jones* MAY 8 1932 MAY 2 1932



